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Army Families and Soldier Readiness

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Prepared for the
United States Army

RAND

PREFACE

This is the final report from a study of Army families, Army programs supporting soldiers and their families, and their relationships to Army missions. The major purpose of this project is to assist the Army in defining its support policies toward soldiers and members of their families.

As part of this project, the Arroyo Center surveyed more than 6000 soldiers and 3100 spouses to ascertain soldiers' individual readiness, the kinds of support programs soldiers and their families use, and soldiers' and spouses' individual motivations and work behavior. The report contains the results of RAND's analyses of the family and Army institutional factors that are associated with soldiers' individual well-being, readiness, and use of services. It also contains a discussion of the policy implications of these findings.

The project has released two other publications.

Vernez, Georges, and Gail Zellman, *Families and Mission: A Review of the Effects of Family Factors on Army Attrition, Retention, and Readiness,* N-2624-A, August 1987.

Morrison, Peter A., Georges Vernez, David W. Grissmer, and Kevin McCarthy, *Families in the Army: Looking Ahead,* R-3691-A, June 1989.

The Army Deputy Chief of Staff for Personnel, Lieutenant General William Reno, is the project sponsor, and Dr. Richard Fafara and Lieutenant Colonel David Westhuis of the U.S. Army Community and Family Support Center are the project's Action Officers. This research was conducted by the RAND Arroyo Center within the Manpower and Training Program.

THE ARROYO CENTER

The Arroyo Center is the U.S. Army's federally funded research and development center for studies and analysis operated by RAND. The Arroyo Center provides the Army with objective, independent analytic research on major policy and organizational concerns, emphasizing mid- to long-term problems. Its research is carried out in four programs: Strategy and Doctrine, Force Development and Technology, Military Logistics, and Manpower and Training.

Army Regulation 5-21 contains basic policy for the conduct of the Arroyo Center. The Army provides continuing guidance and oversight through the Arroyo Center Policy Committee, which is cochaired by the Vice Chief of Staff and by the Assistant Secretary for Research, Development, and Acquisition. Arroyo Center work is performed under contract MDA903-91-C-0006.

The Arroyo Center is housed in RAND's Army Research Division. RAND is a private, nonprofit institution that conducts analytic research on a wide range of public policy matters affecting the nation's security and welfare.

Lynn E. Davis is Vice President for the Army Research Division and Director of the Arroyo Center. Those interested in further information about the Arroyo Center should contact her office directly:

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SUMMARY

Over the past decade, Army families have become more diverse and complex, reflecting parallel trends in the civilian world. Over half of Army personnel are married. Increasingly, their spouses are in paid employment, and hence have less time available for child care or other traditional activities. Simultaneously, the number of single-parent Army families headed by females has risen, and more family members have been accompanying military members in assignments abroad. As a result of these changes, family obligations for military members have broadened and are likely to continue to do so (Morrison et al., 1989).

As such changes have proceeded, Army families have become more vocal in calling for improved family and "quality of life" programs. The Army leadership, at the same time, has articulated concerns that family needs, if unmet, have the potential to reduce soldiers' readiness, retention, and overall well-being. The question is, how extensive are such needs, and how much are they affected by family characteristics and Army policies? Although it is easy to find anecdotal accounts relevant to these issues, the Army has had limited data with which to make systematic assessments that could guide policy.

This study was undertaken to collect quantitative data relevant to Army family policy, focusing on three key areas: soldiers' individual readiness, their use of family services, and their overall well-being. Analyses herein describe those data and assess how family responsibilities and family structure affect the three key areas. Where the data suggest feasible changes in Army practices, the report recommends future policy directions.

METHODS AND LIMITATIONS

The information upon which this study is based was obtained from a 1987 survey of more than 6000 soldiers and 3100 spouses at 23 varied installations of different sizes, unit missions, and locations in the United States, Germany, and Korea. Individuals were sampled to provide an appropriate representation of soldiers by grade, sex, marital status, and family status. Young recruits (grade E1 and E2) and soldiers on installations with fewer than 1000 military members were excluded from the sample. Overall, the weighted responses of the soldiers and spouses surveyed represent about 80 percent of the Army's 777,000 soldiers in 1987.

The data used in this study were collected in 1987 during peacetime and a time of stability in the U.S. armed forces, and hence reflect those conditions. Since then, the U.S. Army has participated successfully in a major conflict in the Middle East. Other condition have also changed: the Soviet Union is no longer a threat and the U.S. Army is undergoing considerable downsizing. These changes may have affected some of the relationships measured in this study.

There are other limitations to this survey. First, the 71 percent response rate, while higher than for other surveys of Army soldiers, may introduce some response bias. Second, all findings reflect self-reported activities and perceptions. And third, because this is a study done at one point in time, the associations we have identified using multivariate statistical techniques indicate only the direction, magnitude, and statistical significance of the relationship between any two variables. They do not necessarily indicate causality.

INDIVIDUAL READINESS

This study focused on several measures reflecting individual readiness, including self-reports of lost duty time, absence from alerts or deployments, and job-related problems. It also considered other related measures, such as soldiers' commitment to the Army, as indicated by their expected length of service, and their confidence in family self-sufficiency while they are away on deployments.

According to the measures in this study, Army personnel have a high level of individual readiness, and they maintain that readiness in spite of family obligations. Fewer than one in 20 soldiers who have had a no-notice alert or planned deployment in the past year reported being late or missing any alert, or leaving any deployment early for personal or family reasons. Although one in five has taken as much as 16 hours off duty time in the past month for personal or family reasons, this represents 7 percent of an average 57.5 hour work week. Less than 6 percent of all soldiers who had a planned deployment in the past year reported inadequate child-care arrangements during deployment. Soldiers also tend to see their families as self-sufficient, with most soldiers being "very sure" that their spouse can take full responsibility for family matters in their absence. Finally, in terms of commitment to the Army, most soldiers with four or more years of service expect to serve until they are eligible for retirement after 20 years in the armed forces.

However, in an institution the size of the Army even small percentages can be significant. For instance, only 6 percent of all soldiers who had a planned deployment reported inadequate child-care arrangements. Nevertheless, in a substantial deployment of, say, 100,000 troops, this would translate to some 6000 soldiers.

The associations between family status and individual readiness vary across readiness-related measures (see Table S.1). Married soldiers with accompanying children expect to serve longer (2.8 years longer than for married soldiers without children). Having accompanying children, however, is related to taking more time off duty, being late to or missing an alert, or leaving a deployment early. For example, we estimate that after controlling for other factors, the absence rate for such alerts and deployments is 4.4 percent for married personnel with accompanying children, compared with about 2 percent for married personnel who have no children with them. The absence rate for single parents with accompanying children is much higher (12.6 percent). *Perhaps more important, however, the survey respondents reported that the most frequent reason for being late or missing a no-notice alert was not being contacted, and the most frequent reason for leaving a deployment early was a military duty requirement.* Overall, a soldier was two-and-a-half times more likely to be absent from an alert or deployment because of not being contacted or for Army requirements than for personal or family-related reasons.

USE OF FAMILY SERVICES AND WELL-BEING

This survey is the first to provide systematic information on broad patterns of use for Army family services, including financial assistance and counseling; health care; general counseling; morale, welfare, and recreation (MWR) programs; child development; and youth activities. In this report we analyze the pattern of utilization for the first four types of services, for groups of different background and family characteristics.

In general, military personnel who have accompanying family members are likely to use more support services than unaccompanied personnel, but fewer MWR services such as clubs

Table S.1

PREDICTIONS OF READINESS BY MARITAL AND FAMILY STATUS

Soldiers	Job-Related Problems[a]	Percent Absent/Late for No-Notice Alert Deployment	Percent with 2+ Days Lost from Duty in Past Month	Attitudes of Commitment to the Army[b]	Expected Years of Service
Single (total)	30.4	2.9	14.2	50.9	13.6
without children	ns	2.3	13.1	46.0	9.7
with children, but not accompanied	ns	5.4	15.7	47.7	10.8
with children, accompanied	ns	12.6	19.7	49.3	11.2
Married (total)	29.0	3.7	19.4	53.4	14.9
without children	ns	1.9	16.9	ns	15.1
with children, but not accompanied	ns	2.0	17.7	ns	16.3
with children, accompanied	ns	4.4	21.3	ns	17.9

NOTE: Predictions for total single and total married assume average characteristics of entire military member sample based on other factors included in the multivariate model. Predictions for subgroups with and without children among singles assume average characteristics of single military members based on other factors. Similarly, predictions for subgroups with and without children among marrieds assume average characteristics of married military members based on other factors. ns means not statistically significant.

[a]Scale based on soldiers' reports of the frequency of various types of problems experienced during the past months while on duty. Zero represents the lowest possible level of job-related difficulties and 100 the highest possible. For details, see p. 35.

[b]Scale measuring the extent to which the soldier identifies with the Army as an organization and shares the values and goals of the Army. Zero represents the lowest possible commitment and 100 the highest possible commitment. For details, see p. 36.

and gyms. Single parents and military members living away from their families are more frequent users of financial and counseling assistance, possibly as a substitute for family support.

Rank also plays a significant role in the types and amount of services used. In general, junior enlisted personnel use more services of all types than other personnel. Compared with senior enlisted personnel, officers, both junior and senior, are less likely to use financial and mental health services and are more likely to use clubs.

Army environment and practices affect the use of services. Perhaps the most significant of these is the assignment location. Military members stationed in the United States are more intensive users of medical and mental health services and less intensive users of recreation services than those stationed abroad. This may reflect availability of some types of medical services at various installations abroad and the larger set of alternatives available for entertainment in the United States.

Various other characteristics are associated with the use of Army-sponsored services, but the most important is the individual soldier's sense of emotional well-being. We assessed well-being using two indicators that have been validated in previous epidemiological studies of large civilian populations: first, a five-item summary measure representing overall emotional well-being (including positive "affect" or happiness, anxiety, and depression); and second, a more specific three-item measure of depressive symptoms, which past studies have linked to an increased probability of clinical depression.

We found that soldiers with higher levels of emotional well-being are less likely to use a broad range of services (including medical, mental health, counseling, and financial assistance programs). In addition, they are less likely to experience job-related problems and

absences from duty and are more committed to the Army, plan to stay longer, and have higher levels of confidence in the self-sufficiency of their spouses. There are indications that some Army situations affect well-being. For example, soldiers who are accompanied by their families tend to have higher levels of emotional well-being; and certain situations, such as working long hours or being stationed abroad, are associated with lower levels of well-being.

We estimate that one out of eight soldiers may have experienced an episode of depression that could have been diagnosed as a depressive disorder in the past year. This could be significant because previous civilian studies have shown that such disorders negatively affect many aspects of an individual's social and physical functioning. It is possible, however, that this indicator, which was validated on a civilian population, might operate differently in a military population. Further analysis would be needed to assess the validity of these measures in the military context and their full implications for job performance.

DIFFERENCES AMONG SUBGROUPS

Army leaders frequently express interest in possible differences in readiness and access to family services among various family-related subgroups of soldiers (e.g., married vs. single personnel, or single parents vs. others). Below we summarize information from our analyses that addresses such differences.

Single and Married Soldiers

Other things being equal, married soldiers report slightly lower rates of job-related problems (5 percent less), are more committed to the Army (5 percent more), and expect to serve longer than single soldiers (1.3 years). Married soldiers, however, take more time off duty for personal and family-related reasons; our analyses indicated that, other things being equal, 19 percent of married soldiers would take two or more days off duty in the past month, compared with 14 percent of singles (see Table S.1). Single soldiers are also more likely than married soldiers to report depressive symptoms, and they are more likely to use counseling and mental health services.

Single Parents With Accompanying Children

In many respects single parents with custody of their children behave similarly to married soldiers with children; for example, they report similar levels of job-related problems and are nearly as likely to lose two or more days of duty time. However, single parents are considerably more likely than married parents to be absent from a no-notice alert or to leave a deployment early (12.6 vs. 4.4 percent).

Generally, single parenthood places a greater demand on support services and a lower demand on MWR services. Compared with two-parent families with children, single parents place a higher demand on counseling services (26 vs. 12 percent using counseling services).

Soldiers Married to Other Soldiers

Soldiers in dual military member families (married to other soldiers) display patterns of personal readiness that are similar to soldiers married to civilians, with three exceptions. They report a 10 percent higher rate of job-related problems, are more likely to miss an alert

or return early from exercise (5.6 vs. 2.3 percent), and are more likely to need day care and rate it negatively (49 vs. 23 percent). In use of services they mirror married couples except that they use mental health services more frequently.

Gender Differences

Female soldiers report 5 percent fewer job-related problems and express the same attitudinal commitment to the Army as their male counterparts. They are, however, somewhat more likely to take time off duty (21 vs. 17 percent taking two days or more off in the past month). Men and women do not differ in rates of being absent at a no-notice alert or leaving an exercise early.

Women in the military are more likely than men to use medical care and mental health services, and they use these services much more frequently. Their use of MWR services is generally similar to males, but they use Army gyms less. The Army pattern of gender differences in the demand and intensity of use of medical and mental health programs is consistent with that observed in the civilian population, although both men and women in the Army use such services at higher levels than civilians do.

POLICY IMPLICATIONS

The Army has several options, including some potentially low-cost options, to increase soldiers' personal readiness and well-being, and to affect the use of its services. Possible adjustments the Army might consider to affect one or more of these areas can be grouped into three major policy domains:

- Changes in Army requirements and practices
- Increases in leadership support of soldiers and family members
- Enhanced services and outreach

Requirements and Practices

The survey findings reconfirm indications that we obtained from earlier research (Vernez and Zellman, 1987) about the impact of Army requirements and practices. Duty requirements, for example, lead to long working hours (an average of 57.5 hours per week as reported by these respondents). Our analyses confirm that such conditions, including long working hours, frequent rotations, frequent separations from family, overseas location, and assignment to a nonpreferred location, have negative impacts on individual readiness and well-being. Therefore, every effort should be made to reduce the frequency of these events when possible. We recognize, however, that significant changes in practices would be required to achieve appreciable improvements in individual readiness and well-being. The multivariate analysis predicts, for example, that a 30 percent decline in hours worked would yield a 6 percent reduction in job-related problems and a 2 percent increase in emotional well-being.

Perceptions of Support and Policies

In general, soldiers and their spouses perceive Army life as equally good as, or in some ways better than, civilian life (based on their ratings of job security, retirement and other benefits, pay, and the family's overall satisfaction). Nonetheless, families differ in the extent

to which they perceive Army support programs to be adequate, and such perceptions exert effects on individual readiness and well-being (even after the effects of other factors are controlled).

We found a strong relationship between favorable perceptions of Army leadership and practices on the one hand, and readiness and individual well-being on the other. Perceptions of Army support and of the necessity of Army requirements are also associated with retention for officers, and with Army commitment and job performance for all soldiers.

The Army leadership desires to provide support and has endeavored to communicate its concern through policies and programs to "reach out" and inform families of upcoming events and available services. For example, local installations normally attempt to provide predeployment briefings and to organize unit family support groups. The burden of such efforts, however, falls most immediately and heavily on the officers and noncommissioned officers at the unit level, placing significant additional demands on an already-burdened unit leadership. Although progress has been made in implementing such policies, much remains to be done. At the time of our survey (1987), fewer than one third of spouses, for instance, reported that they had been invited to a predeployment briefing and fewer than one in five reported an invitation to participate in a family support group.

Two difficulties appear to limit the effectiveness of such policies: first, many spouses and soldiers themselves (about half) choose not to participate even when invited. Second, the organization and operation of these support activities rely on the initiatives of unit commanders, who have many competing demands for their time, and on volunteers (in the case of the family support groups), who are also increasingly facing conflicting time demands. If the Army wishes to make these programs more effective, it should explore alternative mechanisms and resources for broadening knowledge about such activities and for increasing participation in them.

Enhanced Services and Outreach

Our analyses suggest that outreach programs to improve soldiers' emotional well-being could provide significant benefits. There is ample evidence in this study and in the literature that emotional well-being can affect many aspects of personal functioning, as well as the demand for services. For example, our models indicate that an increase of 10 percent in the emotional well-being score is associated with a 6 percent decline in job-related problems, a 5 percent decline in missed alerts or early departures from an exercise, and a 2 percent increase in commitment to the Army. It is also associated with 2 to 5 percent decreases in the use of financial, mental health, and counseling services. The data also indicate that most soldiers who reported symptoms of emotional problems did not seek professional help, although the civilian literature shows that treatment of such conditions often has a positive effect. All of this suggests the Army should develop and test more comprehensive early detection and outreach programs. Such programs, if successful, could improve soldiers' levels of emotional well-being and yield potentially high payoffs by reducing needs for other services.

ACKNOWLEDGMENTS

We thank the more than 6000 Army soldiers and 3100 spouses of military personnel who took the time to respond to our questionnaires and, hence, provide the information upon which this study is based. The completion of a worldwide survey such as the one reported here required collaboration of many points of contact (POCs) and other individuals stationed at more than 23 Army installations and communities in the United States, Germany, and Korea. Although there are too many individuals to identify them all here, we want to thank them in mass for their hard work and patience.

Dr. Richard Fafara, Ms. Gail McGinn, and Lieutenant Colonel Paul Furukawa at the U.S. Army Community and Family Support Center (CFSC) oversaw the conduct of the study and assisted us with access to appropriate Army officials. Successive commanders of CFSC—Major General Robert M. Joyce, Major General Thomas G. Rhame, Brigadier General Neal T. Jaco, Brigadier General Robert A. Harleston, and Major General Fred F. Marty—have been supportive throughout this study, as have Lieutenant Colonel Michael Tharrington, Acting Director, CFSC's Program Analysis and Evaluation, and more recently Lieutenant Colonel David Westhuis.

The study was conducted by several researchers and truly represents a multidisciplinary team effort. Georges Vernez planned and directed all or parts of the project and was responsible for the overall preparation of the report. Audrey Burnam participated in the design of the survey instruments and analyzed the data pertaining to soldier individual readiness (Sec. IV). Cathy D. Sherbourne also participated in the design of the survey instruments and analyzed the data pertaining to soldier individual well-being (Sec. III). R. Burciaga Valdez analyzed the data on service use (Sec. V). Finally, Lisa Meredith faithfully and accurately built all the data files used by this project and did all the programming required by our analyses.

Many others at RAND made significant contributions. Jennifer A. Hawes-Dawson directed and supervised the fieldwork. Laural A. Hill, along with Rebecca M. Mazel, Sara Jones, and Gwen Parker, were responsible for all the survey logistics from mailings to accounting for each survey questionnaire sent. David Reboussin and John Grego were responsible for the design of the sample and Lionel Galway for the weighting of the survey responses. David L. Bryant shouldered the responsibility of designing and phrasing the survey questionnaires. Finally, Susan D. Hosek, J. Michael Polich, and J. Greer Sullivan reviewed and commented on an early draft and made many useful suggestions that enhanced the final product.

We also want to thank Lieutenant Colonel Michael F. Tharrington and Lieutenant Colonel Robert Hinson, who as Army fellows at the Arroyo Center taught us much about the Army and guided us through many difficult decisions. Without their dedication this study would not have been nearly as successful as it was. Finally, we appreciate the careful editing of Jeanne Heller and the excellent secretarial assistance provided by Jacqueline S. Bowens.

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FIGURE

TABLES

I. INTRODUCTION

The initial impetus for this study came from the Army's concerns that changing family composition and family relations may negatively affect soldiers' retention and readiness. How do family obligations affect soldiers' ability to deploy and perform their missions? How do the ways soldiers and spouses think about the necessity of Army requirements and the support they receive from command and from Army service providers affect their behavior? How do Army practices and requirements affect the well-being of soldiers and their family members? And which Army services now available do they use? Answers to these questions are necessary to enhance the understanding of the effects of the Army environment on soldiers and to help the Army enhance its current policies and programs and plan new ones.

CHANGING ARMY AND FAMILY RELATIONS

Since 1980, the Army has increasingly focused its attention on the type and quality of services it provides to family members of the active force. In the last few years, the Army has upgraded its child development facilities, established or expanded services to youths and spouses looking for work, and developed and implemented Annual Family Action Plans (AFAP) to address a broad range of soldier and family-related concerns identified by command and by family members all over the world. To coordinate and enhance its efforts, the Army established in 1984 the Army Community and Family Support Center (CFSC), bringing under one central field administrative entity most of the Army's "quality of life" and family support programs.

These changes, in turn, reflect changes in values and family obligations in both the military and in American society (Vernez and Zellman, 1987). From 1975 to 1985, spouses' participation in the labor force increased from 33 to 55 percent, and is virtually certain to advance; it may reach 70 percent or more in the near future (Morrison et al., 1989). The number of families with both spouses as members of the armed forces has also increased, as has the number of single-parent families. As the number of female military members is likely to continue to increase, so are dual military member and single-parent families. Also, the number of family members accompanying Army personnel to foreign stations has increased (Morrison et al., 1989).

As a result of the above changes, the Army must increasingly compete for the time and commitment of soldiers with broadening family responsibilities. In addition, the changing gender and family composition is reshaping families' needs and altering the demand for Army quality-of-life and family-oriented services.

Accompanying these changes, which took place over less than a decade, were anecdotal accounts of (1) officers' refusing promotions or reassignments for family reasons, and (2) increased absenteeism in training or alerts because of problems created by having to arrange for day care or for other family-related reasons.[1] Demands by family members for greater Army sensitivity to family-related problems and enhanced support services also were becoming more vocal.

[1]Interviews with commanders, soldiers, spouses, and service providers conducted in 1986 by the authors at Army headquarters and at six Army installations located in the United States, Germany, and Korea.

In short, there were concerns among senior Army officers about the adequacy of Army sensitivity to and support for family members and, in turn, concerns that family members may negatively impact on soldiers' retention and ability to perform their job. In the past few years, including the period when this study was conducted, the Army leadership and the family service community were focused on several recurring concerns:

- To what extent do family responsibilities and problems interfere with or support soldiers' individual readiness?
- How and to what extent do the performance and treatment of single soldiers differ from those of married soldiers?
- How and to what extent does single-parent status affect soldiers' well-being, readiness, and service use?
- How and to what extent does dual military member family status affect soldiers' well-being, readiness, and service use?
- How and to what extent do female soldiers differ from male soldiers with regard to well-being, readiness, and/or service use?

PURPOSES OF THIS STUDY

To address these and related questions, this study had two major purposes:

1. To identify and quantify family and Army environmental factors associated with soldiers' well-being, soldiers' individual readiness, and use of Army individual and family support services.
2. To develop policy recommendations and guidelines to enhance soldiers' well-being and readiness, and the effectiveness of Army services programs.

CONCEPTUAL FRAMEWORK

Our overall approach to analyzing how family factors and the Army environment influence selected Army outcomes is illustrated in Fig. 1.1.[2]

The model suggests that factors external to the Army (soldiers' individual characteristics, family structure, and spouse characteristics) combine with Army internal factors (military environment and practices, such as frequency of rotations, separations, or length of working hours) and soldiers' perceptions of these in predicting soldier well-being. Together they, in turn, are expected to affect the two other outcomes of interest here: soldiers' readiness and use of quality-of-life and family services.

How the factors identified in Fig. 1.1 were actually defined and measured is detailed in Sec. II and subsequent sections as are our measures of outcomes: soldiers' well-being, readiness, and service use. Nevertheless, we should indicate at the outset that the study explores a limited and specific subset of these multidimensional outcomes.

Well-being generally encompasses a broad range of dimensions ranging from emotional status to feelings of happiness or anxiety, self-esteem, global satisfaction, and satisfaction with different aspects of one's life (e.g., social life, job, health, etc.). Our study includes measures of three dimensions of well-being (1) one measure of global emotional well-being, (2) a

[2]This conceptual framework is derived from Vernez and Zellman (1987, p. 14).

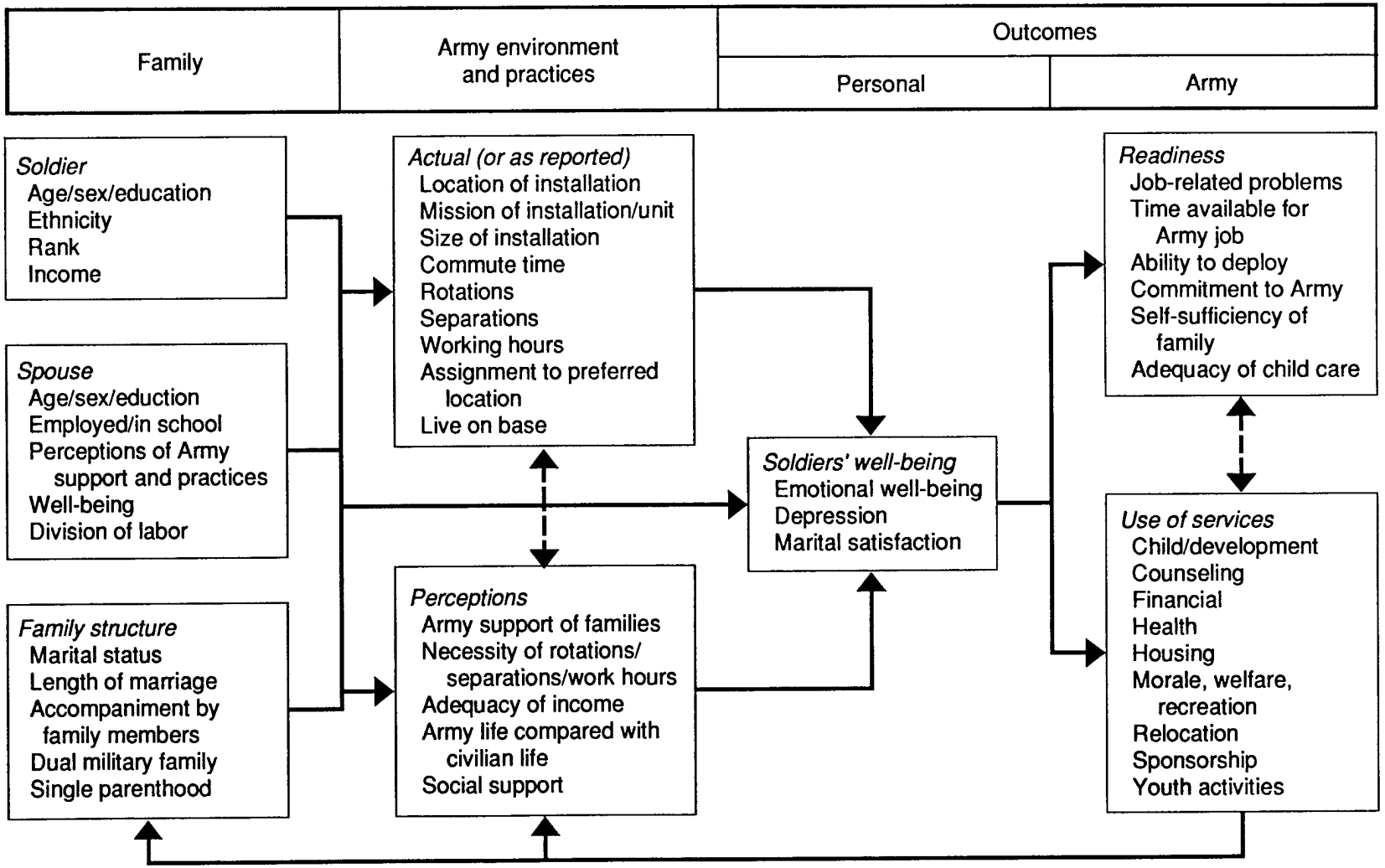

Fig. 1.1—Conceptual framework for analysis of soldiers' Army outcomes

specific measure of depression, and (3) a measure of marital satisfaction. As noted later, they were selected because they were expected to be linked to soldiers' readiness and use of services.

Similarly, the term readiness as used in the Army context has several dimensions, including equipment status, training preparedness, and personnel strength, quality, and preparedness for deployment and combat. In this study, we consider only aspects of readiness linked to an *individual* soldier's motivation and behavior specifically related to (1) job performance, (2) availability for duty and deployment, (3) willingness to be committed to the Army as an organization, and (4) confidence in the self-sufficiency of the families, particularly when deployed.

In contrast to the other two measures of outcomes, this study's coverage of services is comprehensive. We sought information on nearly all quality-of-life and family services offered by the Army, ranging from health care, housing, counseling, and financial and relocation assistance to a broad range of morale, welfare, and recreation (MWR) services. This study is the first to provide systematic information on the intensity of use of such a broad range of services by soldiers and their spouses.

A strength of this study's design and analytic approach is that it allows us to explore the extent to which a broad range of individual, family, and military environment factors are associated with the well-being of soldiers, soldier readiness, and the use of Army services. A multivariate analytic approach provides estimates of the unique relationship of each factor to the outcomes of interest, other factors being equal.

Because the study was cross-sectional, however, we have no empirical basis for knowing whether an association between a "predictor" variable and an outcome variable represents a true causal effect. Our conceptual model merely provides a reasonable view of how variables are likely to be causally related. For this reason this study does not focus on the relationship between service use and readiness.[3] Although we expect that use of Army support programs such as counseling services may enhance readiness, we also expect that those who have more problems are more likely to use such programs. Cross-sectional findings regarding the relationship between service use and readiness, therefore, are difficult to interpret. Finally, this survey was conducted in garrison during a long period of worldwide peace when no Army units were deployed on combat missions or engaged in battle.

ORGANIZATION OF THIS REPORT

To collect the necessary data, we conducted a survey of Army soldiers' and spouses to find out about soldiers' personal readiness, the kinds of support programs soldiers and their families use, and about soldiers' and spouses' individual motivations and work behavior. This report presents the results of our analysis of the survey data. In Sec. II we outline the content of the survey, who was asked to respond, how we selected the sample, and how we conducted the survey and weighted the responses of individual soldiers and spouses to represent the total active duty Army. This section also outlines our general analytical approach and the study's limitations.

Sections III to V discuss the results of our analyses of individual, family, and Army factors related to:

[3]Data collected over time for the same individual (i.e., longitudinal data) would be needed to establish causality.

- Soldiers' well-being: Section III
- Soldiers' individual readiness: Section IV
- Use of Army services: Section V

Each of these sections is organized similarly: they first detail how the indicators of well-being, readiness, and service utilization, respectively, were measured. Second, they describe the values taken by these indicators for all military members and, when feasible, compare these values with those measured in civilian populations; and third, they identify and discuss the main family and Army-related factors that are associated with soldiers' behavior and well-being. Section VI summarizes the main findings and outlines their policy implications.

II. METHODS

This section describes the content and characteristics of our sample survey of Army soldiers and spouses designed to collect information about soldiers' individual readiness, the kinds of support programs soldiers and their families use, and about soldiers' and spouses' individual motivations and work behavior. We then outline our general analytical approach to identifying the relationship between family and individual characteristics, the Army environment and practices, and soldiers' well-being, readiness, and use of support services, respectively.

THE SURVEY: DESIGN AND RESPONSE

The Army is diverse in many respects. Its active personnel and family members are dispersed over more than 200 locations all over the world. An individual soldier's duties vary broadly, from manning an isolated radar station at the border between North and South Korea to being a nurse at the San Francisco Presidio. And there are broad variations in soldiers' responsibilities, length of time in the Army, and marital and family status. Accordingly, we designed a survey that would tell us how behavior and the Army experience differed among these various groups of individuals. Our survey design and method are described briefly below, followed by a description of response rates.

Who Was Asked to Respond

Both the military member and his or her spouse were asked to respond to our questionnaires. As noted below, many of the questions asked were identical for both. Our purpose in doing so was to determine the extent to which experiences in the Army differ between marital partners and eventually to understand the influence that spouses exercise on decisions that affect soldiers' retention and readiness. Single soldiers were also asked to respond for several reasons. First, they may be treated by the Army (and/or behave) differently than married military members. Second, their needs for, and use of, services may differ from those of married soldiers. And third, single soldiers serve as a comparison group for married soldiers.

What the Survey Asked

The primary goal of the survey was to determine the extent to which individual well-being, individual readiness, and service use are affected by family demands and concerns. We designed two survey instruments—one for military members and one for spouses. Each survey instrument was pretested and revised. Below, we briefly discuss the content of these instruments.

Individual Well-Being. We focused on dimensions of individual well-being that we expected might be affected by the Army environment and might affect military members' readiness either positively or negatively. Three dimensions of well-being were measured: (1) general emotional well-being, (2) prevalence of screening positive for depression, and (3) marital satisfaction. Details for each of these measures are presented in Sec. III.

Individual Readiness. Readiness in the armed forces has several dimensions. As noted earlier, we are concerned here with those aspects of individual behavior and motivation that may affect an individual soldier's preparedness to deploy or perform in combat. The survey covered the following dimensions of individual readiness.

- Incidence of job-related problems
- Lost duty time for personal and family reasons
- Absence from alerts or deployment for personal and family reasons
- Confidence about self-sufficiency of family members in the absence of the military member
- Commitment to the Army
- Army career intention
- Adequacy of child care during deployment

These seven dimensions of individual readiness were derived from extensive individual interviews with senior and junior officers, enlisted personnel, spouses, and service providers at six Army installations located in the United States, Germany, and Korea. There was a remarkable consensus across locations and grades on these dimensions. Details for each of these measures are presented in Sec. IV.

Use of Army Services. We asked about actual use of services for most major Army support services offered to both soldiers and family members. We also asked directly about, or sought information to measure the needs for, these services. Table 2.1 lists the Army services that were included in the survey. With respect to needs, we generally asked whether soldiers and spouses had experienced problems in these areas during the past six months. In addition, we also asked spouses whether they had experienced specific problems during the last deployment of their military member. In a few cases (e.g., housing and job search for spouses), we measured needs indirectly by inquiring about the length of time needed to find housing or a job.

For services that are linked to specific events such as relocation (including relocation assistance, sponsorship, housing, and job search assistance) or deployment (family support

Table 2.1

LIST OF SERVICES INCLUDED IN SURVEY

Army Community Services (ACS)
Army Emergency Relief (AER)
Chaplains
Child Development Services (CDS)
Drug and alcohol counseling centers
Family Life Center
Family employment service
Family support group
Housing referral service
Medical facilities/clinics (8 services)
Morale, welfare, and recreation (10 programs)
Red Cross
Relocation assistance
Sponsorship
Youth activities

groups, or predeployment briefings), we asked, as appropriate, about availability, use, and experience with the service. When relevant, we also asked through whom they had found housing or a job to allow assessment of the effectiveness of placement services.

For the other services (e.g., day care, health, counseling) we generally asked whether they had used the service at all during the last deployment and in the last six months. For the latter, we also asked how many times they had used the service. Finally, and selectively, we asked about the quality/satisfaction with the service received, use of civilian services, and reasons for using civilian services instead of Army services. To keep the length of the questionnaires within appropriate limits, we asked only about the frequency of use over the past six months for morale, welfare, and recreation services.

Other Topical Areas. In defining the other topical areas and measures for the survey, we were guided by the conceptual framework outlined in Sec. I and originally developed for analyzing the influence of family factors and the Army environment on Army outcomes.[1] Table 2.2 outlines the range of questions asked.

Several considerations guided our development of the specific questions asked of our respondents. First, rather than asking about hypothetical situations, *we asked soldiers and their spouses to report on their recent experiences in specific situations over a specified time period.* For instance, one indicator of individual readiness, **availability for duty**, was

Table 2.2

OTHER TOPICAL AREAS COVERED BY SURVEY

Individual/family characteristics
Individual demographic and educational characteristics
Marital status and family composition
Job and family satisfaction
Division of labor between spouses
Army practices
Frequency of relocations
Frequency of separations
Work hours
Frequency and type of Army-induced family disruptions
Army interference with spouse activities
Residential location (on- or off-base)
Accompaniment by family members
Perceptions of Army environment and practices
Desirability of current station
Perceptions of necessity of rotations, deployments, and work hours
Perceived Army attitudes toward families
Perceived social support
Perceptions of civilian alternatives
Experiences at last move with
Housing search
Spouse employment search
Relocation
Activities of spouses at current location:
Employment
Education
Volunteer work

[1]Vernez and Zellman (1987).

measured in three specific situations: (1) during the month preceding the interview, (2) at the last no-notice alert, and (3) during the last deployment lasting two weeks or more. The latter two situations are the closest peacetime situations that may reflect behavior during a no-notice alert or deployment due to a conflict situation. Deliberately, we did not place our respondents in hypothetical wartime situations, because there are no compelling reasons to think that responses to such abstractions would in any way be related to actual wartime behavior. Second, we minimized the number of questions seeking to capture perceptions or satisfaction not based on first-hand actual and recent experience. Third, to the extent feasible and desirable, we also sought to use measures that had been used in general population surveys for eventual comparisons of the Army results to those for a normative civilian population. Particular emphasis was given to this consideration in our selection of individual well-being measures.

Finally, to minimize the burden on respondents and keep the length of the questionnaires to a 30- to 40-minute length, we generally made the following trade-offs. First, when the measurement of a concept—such as nature and extent of social support or well-being—required the use of a multi-item measure (scale), we sought to minimize the number of items included consistent with acceptable levels of reliability and validity as measured in previous research or in our extensive pretests of our questionnaires.

Second, only questions that we had reasons to believe might be answered differently by marital partners were asked of both military members and spouses. Thus, we did ask **both** partners questions concerning their respective use and experience with Army counseling services and health facilities or their respective perceptions of the necessity of the frequency and length of separations, working hours, or permanent change of station (PCS) moves. But we asked only one partner about use of, and experience with, child care or youth activities for the children or experience with housing search at the last PCS move.

Finally, when confronted with making a choice between depth or breadth, we generally opted for the latter. This reflects our intent to focus on broad policy concerns regarding Army priorities, practices, and allocation of resources rather than on addressing the managerial and programmatic dimensions of specific programs. This is particularly the case in two major areas in which little information had been collected previously (Vernez and Zellman, 1987): (1) individual well-being and (2) use and experience with Army services.

A sample interview protocol for both military member and spouse appears in App. A.

Generating the Sample

We used a three-stage stratified random sampling design to select a sample of soldiers and spouses to receive our questionnaires. The choice of this strategy, instead of the more common random selection used in most large-scale Army and Department of Defense (DoD) surveys, was dictated by a desire to enhance our understanding of the contextual and individual factors associated with Army family well-being and service needs and use.

In the first stage, we selected a sample of installations. We expected that location and the primary mission—combat, support, or training—of the various Army installations would affect our measures of interest. Hence, the study was designed to permit comparisons among different types of installations. We also expected (as noted in the preceding subsection) that unit (company and battalion) climate might affect the outcomes of interest. Hence, in the second stage we selected a limited number of units that were sampled at each installation included in the survey.

Finally, we expected that certain subgroups of soldiers might differ in their behavior in key areas of interest, including individual readiness and use of Army services. Such groups include female soldiers and single parents. These groups represent a relatively small percentage (about 10 percent or less of all soldiers), but they may have unique family needs that may impact on readiness and on demands for services and are of particular policy interest. Thus, to ensure an appropriate level of accuracy in our measurements, we oversampled in such groups within the previously selected installations and units.

Selection of Installations. In selecting the installations for the survey we focused on making comparisons among installations in the following dimensions: (1) location (United States, Germany and Korea), (2) size of installation, (3) dominant mission of installation (combat, support, and training), and (4) proximity to a large civilian metropolitan area. Installations were stratified into categories based on these factors; then, installations were selected within strata (see App. B, Tables B.1, B.2, and B.3, for list of installations included in the universe and the groupings of installation by strata).

Table 2.3 lists the installations that were included in our survey. Overall, the sample of installations selected in the continental United States (CONUS) includes 28 percent of the 54 installations with at least 1000 active soldiers (in 1986) and represents 41 percent of the active duty personnel. In Germany, the sample selected includes 18 percent of the Army communities with at least 1000 soldiers and 22 percent of the active duty personnel. And in Korea, the two installations selected contained 50 percent of the soldiers (see App. B, Table B.6).

Selection of Units. In selecting units, we purposively selected a set of companies from which to sample individual soldiers. For logistical and cost reasons, we imposed two constraints on selection of companies. The number of companies was not to exceed 40 at any installation, and the number of soldiers selected in each company was not to exceed half the respective total number of soldiers. Otherwise, companies were selected randomly and proportionately to the number of companies in each branch (e.g., armored, infantry, medical support, engineers) represented at each installation.

Selection of Soldiers and Spouses. As we selected the sample of soldiers at each installation, our design ensured that we would be able to make comparisons reliably among soldiers and spouses across the following soldier/spouse characteristics:

- Officers and enlisted
- Junior and career soldiers
- Male and female soldiers
- Singles and married
- Married without children and married with children

In addition, we were interested in identifying the interactive effects of certain marital and family characteristics, most particularly single parents with children. Thus, we used a weighted probability random-sampling strategy that ensured that we would have an adequate number of observations in the specified groups of interest. Our sample size was based on an expected 30 percent nonresponse rate and an expected 20 percent of soldiers who would have relocated between the time we drew the sample and the time the questionnaires were sent into the field. (See App. B, Tables B.4 to B.7, for details on sampling characteristics.)

Soldiers Excluded from Sampling. Three somewhat overlapping groups of soldiers were excluded from our survey. Enlisted personnel in grades E1 and E2 were excluded

Table 2.3

LIST OF INSTALLATIONS INCLUDED IN SURVEY

Installation	Size	Proximity to Urban Area	Mission
United States			
Fort Lewis, WA	L	U	C
Fort Bliss, TX	L	U	T
Fort Carson, CO	L	S	C
Fort Hood, TX	L	R	C
Fort Sill, OK	L	R	T
Schofield Barracks, HI	M	U	C
Fort Meade, MD	M	U	S
Fort Gordon, GA	M	S	T
Fort Polk, LA	M	R	C
Fort Huachuca, AR	M	R	S
Fort Sheridan, IL	S	U	S
Fort Leavenworth, KS	S	S	T
Redstone Arsenal, AL	S	S	S
Fort Wainright, AK	S	R	C
Fort Benjamin Harrison, IN	S	U	T
Germany			
Community	Size	Proximity	Mission
Nuremberg	L	U	C
Mannheim	L	U	S
Schweinfurt	L	R	C
Karlsruhe	S	U	S
Fulda	S	R	C
Mainz	S	R	S
Korea			
Youngsan Garrison, Seoul	L	U	S
Camp Casey	M	R	C

NOTE: See App. B for the values taken by each of the three factors. Size = large (L), medium (M), and small (S). Proximity to urban area = urban (U), suburban (S), and rural (R). Mission = combat (C), support (S), and training (T).

because they are still in training and were not expected to have a long enough experience to address many of the issues probed by our survey. Also, they are most likely to become E3 within a year or less and their eventual behavior is expected to be similar to the E3s included in our survey. This excluded 96,000 or so young soldiers.

Also by design, two other groups—transients and all soldiers and spouses stationed on installations with 1000 or fewer soldiers or stationed abroad other than in Germany or Korea—were excluded from our survey sample. This excluded another 116,000 soldiers.[2]

[2]This number includes about 17,000 transients, 78,000 soldiers located on installations with 1000 or fewer soldiers, and 21,000 soldiers stationed in other countries around the world.

Administering the Survey

The survey was conducted from May to November 1987. Because many of the questions were asked about specific events occurring during a specified period of time immediately preceding the time of the survey, the responses reflect the environment, practices, and conditions of that time.

Questionnaires were first mailed to all prospective respondents in our sample. Military member questionnaires were mailed to the unit address. In the United States, spouse questionnaires were mailed directly to their residence. In the absence of a home address for the latter, the questionnaire was sent to the spouse's name via the military member unit address. Outside the United States, the spouse questionnaire was sent to the military address, as is customary with all overseas mail. One week after the initial mailing, we sent a follow-up "thank you/reminder" letter to all prospective respondents in the sample.

Although we took special measures to verify the accuracy of the addresses and secured command support at each installation, responses to our first mailing and follow-up reminder letter were lower than expected. Overall, 31 percent of the questionnaires sent were completed and returned.[3] After testing various methods to follow up on the first mailing, we vigorously implemented a combination of the two follow-up techniques below:

- Unit distribution of a second questionnaire to both soldiers and spouses with full accountability of every survey by the installations' (and, in turn, units') point of contact (POC), in the United States and in Korea.
- On-site group survey sessions for soldiers and spouses at four communities in Germany together with full sample accountability by on-site survey staff who worked with the units' POCs.[4] If a spouse did not attend the session, soldiers were asked to take a spouse survey home and encourage their spouse to complete and return it.

This follow-up increased the response rate to an overall 71 percent for soldiers, a respectable response rate for this type of survey and generally higher than that obtained in other large Army surveys. About 35 percent of the questionnaires in the initial sample were either undeliverable or were ineligible because the soldier was on extended temporary duty (TDY) or had left the installation/community.[5] Three percent of the original sample refused outright to respond.

Who Responded

A total of 6014 soldiers completed a survey as did 3143 spouses. Responses were obtained from both spouses for 2458 families. Not all installations/communities and subgroups used to stratify the sample responded at the same rate. Our analysis shows that the following factors affected response rates:

- Type of respondents: Higher response among soldiers than among spouses (about 8 percent).
- Location: Higher responses in Germany than in the United States (about 5 percent) or Korea[6] (about 12 percent).

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[3]Thirty percent for soldiers and 32 percent for spouses.

[4]The four communities selected for intensive follow-up work were Fulda, Mainz, Mannheim, and Nuremberg.

[5]The ineligible surveys were excluded from the response rate computations.

[6]Because many of the spouses in the Korea installation samples reside in the United States, their response rate was particularly low (42 percent).

- Grade: Higher response among officers and their spouses (about 12 percent), and somewhat higher response rates among senior than junior soldiers (4 percent).
- Type of unit: Lower response rates among combat units than other units (about 7 percent).
- Gender: Higher responses among female soldiers than male soldiers (about 5 percent). Female spouses had higher response rates than male spouses (12 percent).
- Marital status: Somewhat higher responses from married than single soldiers (3 percent).
- Family status: Higher response from spouses with children than spouses without children (about 10 percent for spouses and 3 percent for soldiers).

Appendix C shows the response rates by location, installation, and demographic groupings.

Weighting the Responses

Because the groups differed in their response rates, because some groups were deliberately oversampled, and because not all installations were eligible for sampling, the final sample of respondents is not directly representative of the universe of soldiers and spouses in the Army. Also, the characteristics of some respondents changed between the time the sample was selected and the time the respondents filled out the questionnaire. To account for these factors, we adjusted (weighted) the sample as described in App. D. Table 2.4 shows the universe and number of respondents by selected policy groups.

Overall, our survey responses represent about 559,000 of the 772,200 soldiers and their spouses in the Army in early 1987.[7] Our stratification of the original sample and then our weighting of the responses to the 559,000 soldiers in the universe sampled ensure that the responses represent the varied circumstances and individual and family characteristics encountered in the Army.

ANALYTICAL APPROACH

Maximizing readiness to deploy and engage in combat is the primary mission of the Army. Hence, the range of factors that affect individual readiness is a primary focus of the analysis presented in this report. Individual well-being and service needs and use may affect individual readiness while also raising policy questions of interest on their own.

In the multivariate analyses presented in Secs. III, IV, and V, each of these domains is characterized by a unique set of dependent variables that are fully specified and discussed in those sections. The factors expected to be associated with each type of outcome (e.g., well-being, readiness, and service use) are modeled according to the overall conceptual framework presented in Sec. I.

Independent Variables

The factors that are expected to affect well-being, readiness, and service use are grouped into the following major categories:

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[7]This number is the total number of soldiers reported in the *Defense Almanac* (September 1988) as of March 31, 1987.

Table 2.4

UNIVERSE AND NUMBER OF RESPONDENTS BY POLICY SELECTED GROUPINGS

Group	Soldiers			Spouses		
	Universe	Respondents		Universe	Respondents	
All Army	559,313	6,015	(6,014)	341,198	3,130	(3,127)[a]
Officers	76,423	792	(1,708)	58,608	524	(1,145)
Senior enlisted	234,436	2,521	(2,495)	190,920	1,759	(1,159)
Junior enlisted	248,454	2,702	(1,811)	91,670	847	(823)
United States	374,780	3,519	(3,519)	232,567	1,859	(1,866)
Germany	156,335	1,993	(1,992)	93,007	1,093	(1,102)
Korea	28,198	503	(503)	15,624	178	(175)
Combat	328,495	3,286	(2,964)	190,393	1,700	(1,591)
Support	230,818	2,729	(3,050)	150,805	1,430	(1,552)
Enlisted						
Single	177,560	1,936	(985)			
Single parent[b]	22,740	252	(618)			
Married, no child(ren)	88,837	958	(822)	88,837	739	(452)
Married, child(ren)	193,753	2,077	(1,881)	193,753	1,790	(1,476)
Female	50,727	550	(733)	257,328	2,392	(1,783)
Male	432,163	4,673	(3,573)	25,262	214	(199)
Officers[c]						
Single	15,691	151	(309)			
Married, no child(ren)	29,021	295	(367)	29,021	225	(248)
Married, child(ren)	29,587	317	(948)	29,587	292	(880)

NOTES: Respondents' numbers inside parentheses are unweighted frequencies; numbers outside parentheses are weighted to represent the universe of military members (excluding grades E1 and E2) in CONUS, Germany, and Korea at installations with more than 1000 military members. The weighted distributions do not always match the distributions of the universe because groupings with too few observations were pooled with other gropupings

[a]The number of spouses responding was 3143, but 16 cases could not be matched to a respondent in the military member survey.

[b]Includes all single parents whether or not they are accompanied by their child(ren).

[c]The total observations for officers here does not add to all observations for officers because 84 observations are for single parents.

- Individual characteristics
- Family structure
- Military environment and practices
- Perceptions of military environment and practices
- Spouse characteristics

In addition, readiness and service use can be expected to be affected by individual well-being.

Each of these concepts is measured by a set of independent variables as displayed in Table 2.5. Appendix E gives a more detailed description of each variable. MM is military member.

Table 2.5

MEANS AND STANDARD ERRORS FOR INDEPENDENT VARIABLES: SOLDIERS AND SPOUSES

Variable	Soldiers		Spouse Characteristics	
	Mean	Std. Error	Mean	Std. Error
Individual characteristics				
Age[a]	27.4	.08	28.8	.14
Male	89.3	.40	6.9	.52
White	68.2	.60	—	
Black	25.8	.56	—	
Latino	1.4	.15	—	
Other race	4.6	.27	—	
Education (1–7)[a]	3.8	.01	3.6	.02
Per capita annual family income/spouse income (thousands)[a]	13.1	.10	4.8	.15
Junior	53.0	.64	—	
Enlisted	86.8	.44	—	
Employed	—		49.9	1.02
In school	—		5.4	.46
Family structure				
Married	60.9	.63	—	
Dual military family	9.5	.60	—	
Child dependent accompanying	33.0	.61	—	
Child dependent not accompanying	7.9	.35	—	
Live with spouse	53.0	.64	—	
Years of marriage to current spouse[a]	5.7	.09	6.3	.11
Number of dependents[a]	1.4	.02	—	
Army environment and practices				
Installation in CONUS	58.5	.64	—	
Installation in Germany	33.1	.61	—	
Installation in Korea	8.4	.36	—	
Combat mission	54.6	.64	—	
Support mission	24.0	.55	—	
Training mission	17.0	.48	—	
Combat unit	57.7	.64	—	
Installation size (thousands)[a]	14.0	.13	—	
Urban location	50.0	.64	—	
Suburban location	27.3	.57	—	
Rural location	22.7	.54	—	
Commute time (in minutes)[a]	12.5	.12	—	
Number of PCS per year of service[a]	.4	.02	—	
Did not request a preferred location	27.4	.58	—	
Assigned to a preferred location	35.1	.62	—	
Not assigned to a preferred location	37.5	.63	—	
Hours worked per week[a]	57.5	.20	—	
Live on base	52.1	.65	—	
Number of separations in past year[a, b]	3.4	.01	—	
Months of separations in past year[a, b]	3.7	.02	3.5	.02
Accompanied tour	44.3	.65	—	
Problems from soldier's work schedule (0–100)[a]	—		24.5	.47

Table 2.5—continued

Variable	Soldiers		Spouse Characteristics	
	Mean	Std. Error	Mean	Std. Error
Perceptions of Army support and practices				
Supportiveness of Army leadership (0–100)[a]	46.2	.36	38.3	.60
Necessity of time spent on duty (1–6)[a]	4.3	.02	4.0	.02
Necessity of PCS moves (1–6)[a]	4.2	.02	3.9	.02
Necessity of family separations (1–6)[a]	3.7	.02	3.6	.03
Army life better than civilian life (0–100)[a]	59.7	.29	64.4	.46
Adequacy of income (1–6)[a]	4.2	.02	4.2	.02
Perceived availability of social support (0–100)[a]	61.6	.36	59.8	.56
Individual well-being				
General emotional well-being (0–100)[a]	67.3	.25	68.1	.39
Screened positive for depression[a]	40.2	.65	37.6	1.01
Marital satisfaction (0–100)[a, c]	77.8	.30	77.0	.40
Other				
Shares family chores equally	24.4	.68	18.3	.79
Does family chores most of the time	33.6	.75	64.3	.97

NOTE: Entries are percentages unless noted by (a), which indicates a mean. Continuous variables are positively scored with the unit or range of values shown in parentheses. Actual values of variables and scoring procedures are documented in App. E. (b) excludes singles without children; (c) excludes not marrieds.

Statistical Methods

We used regression methods[8] to identify the factors that were significantly related to each of our outcome measures. Our multivariate analyses used three estimation methods: (1) ordinary least squares (OLS) regression for continuous variables, (2) logistic regression for dichotomous measures, and (3) negative binomial regression for modeling the intensity of service use. Table 2.6 shows the type of regression technique used for each of our outcome measures and App. F outlines the rationale for selection of the logistic and negative binomial regression techniques.

Although we tailored our regression model specification to each outcome (dependent) variable, we consistently used the same sequential order of entry of independent variables. We first controlled for individual characteristics (e.g., age, race, gender, education, income, and rank). We then entered in the models blocks of variables that we hypothesized might be related to our dependent variables including measures of: (1) family structure (e.g., marital status and accompaniment by spouse and children), (2) military environment and practices (e.g., location, mission, size of installation, proximity to urban area, commute time, relocation, time at location, preferred assignment, hours worked, and residential location), (3) perceptions of the military environment and practices (e.g., support of Army leadership, necessity of Army practices, comparison of the Army to civilian alternatives, income adequacy, help from Army in getting settled, and social support), and (4) spouse characteristics (e.g., age, income, employment, country of birth, and perceptions).

[8]To rule out any biases resulting from intraclass correlation due to our stratification of sampling by installations, we ran a selected sample of regressions adjusting for "intrabase correlation." This method corrects standard errors for effects of the sample design. We defined clusters as units within installations (N = 464). We found very low intrabase correlation in our data and, therefore, it was unnecessary to make statistical adjustments for our sampling approach in these analyses.

Table 2.6

REGRESSION TECHNIQUES USED BY MEASURE OF OUTCOMES

	Measures of Outcomes		
Statistical Technique	Well-Being	Readiness	Service Use
Ordinary least squares (continuous variables)	General emotional well-being Satisfaction with marriage	Job-related problems Commitment to Army Expected years of service Perceptions of spouse self-sufficiency	
Logistic regression (dichotomous variables)	Depression	Lost duty time Absence for alert/deployment Inadequate child care during deployment	Whether used service at all in past six months
Negative binomial regression (rate of service use)			Rate of use by soldiers in the past six months

We chose to keep certain basic variables in all models regardless of their significance (i.e., individual characteristics and family structure variables). However, given the large number of predictors examined in the models, we dropped other variables that did not make a significant contribution. Generally, variables that were not significantly related ($p < 0.10$ or less) to the outcome measures were dropped from the final models. We therefore discuss estimates only from the reduced models (e.g., reestimated after dropping weakest nonsignificant variables) to highlight the key factors that were associated with soldiers' well-being, readiness, and service use.

Finally, we estimated the relationships between our measures of outcome and their predictors separately for four different groups of soldiers, as appropriate:

1. All military members (N = 6014)
2. Married military members (N = 4048)
3. Single military members (N = 1966)
4. Military couples (N = 2458)—military members for whom we had matching spouse data

Whereas the analysis of all military members allowed us the most precision to detect small differences, the separate analyses by marital status allowed us to determine significant factors specific to married and single soldiers, respectively. A number of factors (independent variables) applied only to one group (married) and not to the other (singles) and thus could not be introduced into the all-military members model, but could be introduced into the married sample model. Finally, analyses on the couple subsample allowed us to test the degree to which characteristics of the spouse are associated with a soldier's well-being and readiness. In the military couples models, we added family structure variables (e.g., dual military member, length of marriage, and division of labor) and spouse characteristics (e.g., employment, income, school status, problems encountered by the spouse due to the military member's work schedule, and spouse well-being).

This four "subpopulation" analytical approach was appropriate for most, but not all, of our outcome measures. Measures of soldiers' marital satisfaction (well-being) and of soldiers'

perceptions of spouse self-sufficiency (readiness) were obtained only from married soldiers. Hence, models were appropriately estimated only for the "married" and "couple" samples. Similarly, the question of adequacy of child-care arrangements during deployments (readiness) was pertinent only for soldiers with children and, hence, a model was estimated only for soldiers with children (N = 3225) and for soldiers with accompanying children (N = 2528). Finally, service use and rate of service utilization were estimated only on the sample of all military members.

The complete final estimated regression models are included in Apps. G (well-being), H (readiness), and I (service use).

STUDY LIMITATIONS

This study of the factors associated with three types of outcomes of interest to the Army has two important limitations.

- The data upon which our estimates are based were collected at one point in time in 1987.

Thus, the results presented reflect the Army policies and practices and the soldiers' and their spouses' perceptions of those practices at that time. Events and long-term changes that have occurred since then, including the Desert Storm operations, disappearance of the Soviet threat, and downsizing of the active force, may have altered some of the relationships identified in this study. In addition, while the cross-sectional nature of the data allowed us to determine which outcomes were *associated* with which individual and environmental characteristics, it did not allow us to determine *causality* between these variables. In other words, we could determine whether "absences from alerts or deployment" were positively or negatively related to "general emotional well-being" and the significance and magnitude of this relationship. But we could not determine whether the second caused the first or vice versa. Data collected over time for the same individual (i.e., longitudinal data) are needed to establish causality.

- Nearly all of the information upon which our results are based was self-reported by the soldiers and spouses who responded to our mail questionnaires.

Therefore, all of our results reflect what soldiers and spouses have told us according to their recollection of events and their behavior during those events, some of which dated six months from the time of the interview. Self-reports are subject to reporting biases due to lack of accurate recollection. To an unknown extent they may differ from the reports that would be obtained from an "objective" observer. However, we did systematically screen the distribution of individual responses to identify major response problems such as implausible frequency of events. We did not identify any.

Finally, this study, like all studies based on survey data, presented problems of missing data—individuals responding to most but not all questions. In the case of soldiers' individual characteristics, we were able to use data from administrative records to substitute. Overall, selective nonresponses were not frequent on any given item nor did we detect a pattern (e.g., subpopulations) of nonresponses that caused us more than the usual concerns for this type of survey.

III. SOLDIER WELL-BEING

Soldiers and their families are subjected to numerous stresses that individually or in combination are not found in civilian life, or where found, operate at a higher level of intensity in the military. Compared with civilian families, military families are separated more frequently and longer, move more often, and are more frequently assigned to locations varying in cultural, work, and educational opportunities. On the average, Army soldiers are separated from their families 3.4 times a year for a total of about four months, and they move to a new location, often abroad (OCONUS), every two and a half years (see Table 2.5). In addition, military families, particularly those of members in combat units, must live with the constant uncertainty that the military member may be called on short notice to combat or other dangerous duties. And all family members must cope with the authority structure of the military, which may affect the role and identity of spouses and may impinge substantially on family privacy (Vernez and Zellman, 1987, p. 2).

In the 1980s, the Army aggressively responded to these pressures on soldiers and their families by promoting the enhancement of family and individual well-being as an end in itself. The Army also recognizes its reciprocal obligations toward soldiers and their families to provide those benefits and services that ensure them a reasonable quality of life (Vernez and Zellman, 1987, p. 6). In exchange, the soldier is seen as pledging strong commitment to the Army and a willingness to give his or her life. Thus, we will analyze individual well-being as an outcome of policy interest in its own right to identify the factors that are associated with it. In Secs. IV and V we analyze the extent to which soldiers' and spouses' well-being is in turn related to soldier readiness and service use, respectively.

INDICATORS OF INDIVIDUAL WELL-BEING

Broadly, individual well-being refers to a person's emotional status or feelings in general, including both positive and negative feelings (e.g., feelings of cheerfulness and feelings of anxiety or depression) and satisfaction with one's life in general and in its various dimensions (e.g., social life, marriage, and health). Among the many dimensions of well-being, we chose to measure three: (1) general emotional well-being, (2) depression, and (3) marital satisfaction. The first two indicators of well-being were selected because previous research on civilian populations has linked them to poor functioning. Hence, we expected these measures to be related to soldiers' individual readiness. Marital satisfaction was selected because of our interest in determining how the Army environment and practices affect an important indicator of family relations and, in turn, how family relations are related to readiness.

Below, we briefly expand on our rationale for selection and describe how these indicators were actually measured.

General Emotional Well-Being and Depression

Emotional well-being is a summary indicator that aggregates information on two distinct subdimensions—emotional distress (i.e., symptoms of anxiety and depression) and emotional well-being (i.e., level of positive affect). The related indicator of depression[1] focuses on only one component of emotional well-being. We look at this indicator separately because this dimension of mental health has been most strongly linked to poor functioning in previous research and it can be modified through detection and aggressive treatment (Paykel, 1982).

Depression and depressive symptoms affect an individual's ability to function at work and at home, and his or her social activities and relationships with others. As a clinical syndrome, depression is associated with excess mortality due to accidents and suicide, and with considerable impairment in social and occupational functioning (Lehman, Ward, Linn, 1982; Blumenthal and Dielman, 1975; Craig and Van Natta, 1983; Klerman, 1980; Paykel and Weissman, 1973). Even patients with milder states of depression have been shown to have lower physical, social, and role functioning, lower perceived current health, and greater bodily pain than do patients with no chronic conditions (Wells et al., 1989). In addition, the functioning of depressed patients is comparable with or worse than that of patients with major chronic medical conditions. The only chronic conditions having associations with functioning comparable with those of depressive symptoms are current heart conditions (Wells et al., 1989). We expect, then, that soldiers who are depressed may be unable to function effectively in their everyday life and may be less prepared to deploy or perform in combat. Depression is expected to directly diminish individual readiness. Similarly, spouses with depressive disorder may be less able to carry out family or household responsibilities, placing a greater burden upon the military member and, thus, indirectly affecting readiness.

Although many people with serious depression do not receive treatment for their disorder (Shapiro et al., 1984), a variety of effective pharmacologic and psychosocial treatments are available (Paykel, 1982). If Army readiness is substantially diminished by depressive disorders among military members or their spouses, increased detection and intervention might alleviate this problem.

The indicators of well-being used here have demonstrated acceptable levels of reliability and validity in previous research on civilian population (Ware et al., 1992). They have been used in general population surveys,[2] thus suggesting, but not establishing, how the well-being of Army members might compare with that of a civilian population. As used below, we recommend that this scale be fully validated for a military population.

General Emotional Well-Being was measured by a five-item Mental Health Inventory Scale (MHI-5) derived empirically from a longer version administered in RAND's Health Insurance Experiment (HIE) and modified for use in RAND's Medical Outcomes Study (MOS).[3] The inventory focuses on general mood or affect, including depression, anxiety, and psychological well-being during the past month. The respondent was asked to rate how much

[1]Emotional well-being and depression correlate r = -0.54 in the military member sample.

[2]The emotional well-being indicator was fielded in a random sample of U.S. households ages 18 years and older as part of the Harris Poll Interview (Ware et al., 1992). The depression indicator was part of the Diagnostic Interview Schedule fielded in recent epidemiological field studies conducted by The National Institute of Mental Health (Regier and Myers, 1984).

[3]RAND's Health Insurance Experiment was a large-scale controlled trial examining the effects of different organizational and financial arrangements for delivering health-care services that began in 1971; the MOS is an observational study of variations in physician practice styles and patient outcomes in three different systems of care (patients were enrolled in 1986) (see Tarlov et al., 1989).

of the time during the past month he or she: (1) was a very nervous person, (2) felt calm and peaceful, (3) felt downhearted and blue, (4) was a happy person, (5) felt so down in the dumps that nothing could cheer him or her up. Response categories ranged from 1 (all of the time) to 6 (none of the time). An overall emotional well-being score was created from these five items, ranging from 0 to 100, with higher scores indicating the absence of psychological distress and the experience of psychological well-being during the past month.

The scale used here was evaluated using data gathered during telephone interviews of a national sample of adults (N = 2008) ages 18 years and older as part of the Harris Poll Interview (Ware et al., 1992) and in a sample of patients (N = 11,186) participating in the Medical Outcomes Study (Stewart et al., 1988). Its reliability (the extent to which measured variance reflects true score rather than random error) was high in both of these civilian populations and was also high for our sample of military members and spouses.[4]

Depression. Major depression is one of the most common specific mental disorders (Klerman, 1980; Robins et al., 1984). The term depression refers both to mild states of lowered mood, as well as to severe and persistent clinical syndromes (see below). According to diagnostic criteria endorsed by the American Psychiatric Association (American Psychiatric Association, 1980) and widely used in clinical practice, the predominant depressive clinical syndromes are major depressive episodes and dysthymia. Severe depressive episodes are characterized by a period of lowered mood persisting for two weeks or more, accompanied by at least four of eight associated symptoms (which may include appetite disturbance, sleep disturbance, psychomotor agitation or retardation, loss of interest or pleasure in usual activities, loss of energy, feelings of worthlessness or excessive guilt, diminished ability to think or concentrate, and recurrent thoughts of death or suicide). Dysthymia is a more persistent state of depression that is generally characterized by a less severe symptom pattern. To meet criteria for dysthymia, individuals must have experienced a depressed mood all or most of the time over a period of at least two years, accompanied by at least three of 13 associated symptoms (which may include sleep disturbances, low energy, feelings of inadequacy, decreased productivity, decreased attention, social withdrawal, loss of interest in pleasurable activities, irritability, inability to enjoy praise or rewards, psychomotor retardation, pessimism or brooding, tearfulness or crying, and recurrent thoughts of death or suicide).

Information regarding the prevalence of these specific psychiatric disorders in the general population was provided by a major collaboration of universities and the National Institute of Mental Health, known as the Epidemiologic Catchment Area (ECA) research program.[5] Over 20,000 adults representing the household populations of five U.S. sites were studied. The sites were geographically bounded communities in New Haven, Connecticut; Baltimore, Maryland; St. Louis, Missouri; the Piedmont region of North Carolina; and Los Angeles, California. Diagnoses were established using the National Institute of Mental Health's Diagnostic Interview Schedule (DIS), which is a highly structured survey instrument administered in person by trained lay interviewers (Robins et al., 1981). DIS results indicated that about 1 in 20 adults had experienced a major depressive episode at some time in their lives, about 3 percent of adults had experienced such an episode in the past six months, and dysthymia was present in 2 to 4 percent of adults (Karno et al., 1987; Burnam et al., 1987).

[4]The reliability of the scale is measured by Cronbach's alpha coefficient. A value of 0.50 or above indicates adequate reliability for group comparisons (Helmstadter, 1964). The alpha coefficient for the civilian and Army populations discussed above ranged from 0.82 to 0.87, indicating high reliability.

[5]Regier and Myers (1984).

The screener for depression used in our study contained the best three items (i.e., items that were the best predictors of depression) from a longer screening version developed from the full DIS. Prior research confirms that these self-report items are good screening items for detecting major depression (Burnam et al., 1988).

The first two items asked about persistent periods of depressed mood. Respondents were first asked if they had two years or more in their life when they felt depressed or sad most days, even if they felt OK sometimes. If so, they were then asked if they felt depressed or sad much of the time in the past year. The third item asked about briefer episodes of depressed mood in the past year (in the past year, have you had two weeks or more in which you felt sad or depressed or when you lost all interest or pleasure in things that you usually cared about or enjoyed?). Respondents received a score of "depressed" if they answered "yes" to the item about having two weeks or more in the past year in which they felt sad or depressed *or* if they answered "yes" to both of the first two items (e.g., they had two years or more in their life when they felt depressed or sad and they felt depressed or sad much of the time in the past year).

To determine how well the shorter screener used in this study (i.e., the three items rather than the longer version reported by Burnam et al., 1988) would predict major depression or dysthymia in the past year, we used data from the household sample of the Los Angeles ECA study (N = 3036) to compare the three-item screener to diagnoses that were obtained using the full DIS. We found that the sensitivity of the three-item screener was 80 percent (of those who had a diagnosis of major depression or dysthymia in the past year, 80 percent were screened positive). The screener's specificity was 92 percent (of those who did not have a diagnosis of major depression or dysthymia in the past year, 92 percent were screened negative). The positive predictive value of the screener was 33 percent (of those who were screened positive, 33 percent had a diagnosis of major depression or dysthymia in the past year, and therefore had a depression of clinical proportions).

Marital Satisfaction

The marital satisfaction scale used in this study is a four-item indicator of the respondent's evaluation of the communication ("we said anything we wanted to say to each other;" "we often had trouble sharing our personal feelings") and support ("my spouse was supportive of me;" "we tended to rely on other people for help rather than on each other") provided within the marital relationship. This measure was adapted from a longer six-item version developed for the MOS (Sherbourne and Kamberg, 1992).

The four items asked married respondents to evaluate how true or false each of the four items was for them during the past six months. Response categories ranged from 1 (definitely true) to 5 (definitely false). An overall marital satisfaction score was created ranging from 0 to 100, with higher scores indicating more communication and supportiveness of the marital relationship. The reliability of the marital satisfaction scale is high, with alpha coefficient equal to 0.72 for both the military member and spouse samples.

WELL-BEING: COMPARISON WITH CIVILIAN POPULATION

Table 3.1 displays the mean values estimated for our three indicators of well-being for all soldiers. Overall, they suggest that military members in our sample appear to have poorer levels of well-being than a civilian population of similar age and gender characteristics.

Table 3.1

WELL-BEING INDICATORS FROM ALL SOLDIERS

General emotional well-being, mean score	67.3 0.5[a]
Percentage of soldiers screening positive for depression	40.2 1.3[a]
Marital satisfaction, mean score	77.9 0.6[a]

[a]Margin of error with 95 percent confidence for the measure immediately above.

The mean general emotional well-being score of all soldiers is 67.3 on a scale ranging from 0 to 100, with a high score indicating more positive feelings of well-being. In comparison, the mean emotional well-being score for a random sample of U.S. households (N = 2008) ages 18 years and older (Ware et al., forthcoming) was 78.0. However, the age and sex distributions of the two samples are quite different. Specifically, the Army sample has about 89 percent males, whereas the civilian population sample had 44 percent males. Also, the Army sample has greater numbers of younger people and fewer older people than did the civilian population sample. Previous research suggests that males in a civilian population score higher on well-being than females and that older people score higher on well-being than younger people (Berkman, 1971; Berkman et al., 1986).

When adjusted to the age and gender distribution of the civilian population, the mean emotional well-being score of all soldiers rises from 67.3 to 72.1. When adjusted to the age and sex distribution of the Army sample, the mean emotional well-being level of the civilian population changes only slightly from 78.0 to 77.9. Using either method of adjustment, the difference in emotional well-being between military soldiers and a "comparable" civilian population remains.

Reports of episodes of major depression or dysthymia by soldiers were also found to be higher than in the civilian community by as much as three to four times. Overall, 40 percent of all military members screened positive for depression. As with the result for emotional well-being, this estimate may be biased in relation to the general civilian population due to the preponderance of males and younger age groups in the military population. In the Los Angeles ECA general civilian sample, the percentage of persons who screened positive for depression was 12.1. The percentage of persons who were assessed as having major depression or dysthymia in the past year was 5. When adjusted to the age, sex, and education distribution of the Army family military sample, the percentage who screened positive for depression was 11.8 and the percentage who had major depression or dysthymia was 3.8. By comparison, the percentage who were screened positive in the Army family military sample was 40.2. If the screener operates similarly in a military and general population sample, then we might expect a prevalence of major depression or dysthymia in the past year for the Army family sample to be about 12.9 percent, or 3.4 times higher than in a sex/age/education-adjusted general population.

It is possible, however, that the screener operates differently in a military sample. This would be the case, for example, if the depression experienced in the Army is more likely to be mild. Thus, our screener for depression suggests, but does not establish, elevated rates of

clinical depression in military members relative to the general population. Further research is necessary to more conclusively establish the nature and prevalence of depression in Army personnel.

Overall, the mean level of marital satisfaction among all military members is 77.9 on a 0–100 scale. The scores are skewed toward the "satisfied" end of the scale distribution. There is no general population comparison for this score.

MAJOR FACTORS ASSOCIATED WITH SOLDIER WELL-BEING

We now turn to a discussion of the key factors that our multivariable analyses found associated with soldiers' well-being. The factors are grouped by categories in the following order: (1) individual soldier characteristics, (2) family structure, (3) Army environment and practices, (4) soldiers' perceptions of that environment, and (5) spouse characteristics. The reader is reminded that throughout this discussion, the significance and magnitude of the relationship to well-being of each factor are those obtained while holding every other "predictor" constant, that is, controlling for the "effect" of all other factors considered in the analysis. To ease interpretation, the tables that follow show the predicted well-being values for each of the factors found significant at the 5 percent level or lower. The reader is referred back to Sec. II for details of the analytic techniques used and to App. G for the complete results of the multivariate regression models.

Individual Characteristics

Individual demographic characteristics analyzed included age, race, gender, educational level, household income, and rank. In general (with the exceptions noted below), higher levels of well-being are found among soldiers who are older, black, male, and who have higher incomes—patterns similar to those found in civilian populations. In addition, rank is related to well-being, with junior enlisted soldiers reporting poorer emotional well-being (see Table 3.2).

Our key individual characteristics findings include the following.

- Older military members have significantly better emotional well-being (e.g., the level of emotional well-being is about 3.1 points higher for soldiers age 34 than for soldiers age 24), and are less likely to screen positive for depression.

The age differences for emotional well-being and depression are strongest for single soldiers. For example, 51 percent of single soldiers age 24 screen positive for depression, whereas 31 percent of single soldiers age 34 so screen.

- Race is not related to marital satisfaction but is related to the other two measures of well-being.

Black soldiers scored higher on emotional well-being (a 3.2 point difference) than white and other soldiers, a relationship that holds for both married and single soldiers. Overall, black soldiers are also less likely to screen positive for depression than whites and other soldiers, although this relationship is weaker ($p < 0.06$) than that for emotional well-being. The lower depression among blacks occurs primarily among those soldiers who are single: 44 per-

Table 3.2

PREDICTIONS OF INDIVIDUAL WELL-BEING BY SOLDIERS' DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristic	Emotional Well-Being (Mean on 0–100 scale)	Depression (Percent screening positive)	Marital Satisfaction (Mean on 0–100 scale)
Age[a]			
24 years	66.9[b]	51.0[c]	
34 years	70.0	31.0	
Race			
Black	70.0[b]	43.8[c]	
White	66.8	50.0	
Gender			
Male	68.0[b]	33.7[d]	77.6[d]
Female	64.3	41.3	74.4
Income (per capita)			
$ 7,800 (25th percentile)	67.2[b]	42.3[b]	
$17,000 (75th percentile)	68.1	38.1	
Education			
High school degree		37.8[d]	78.0[d]
College degree		30.4	76.5
Rank			
Jr. enlisted	66.9[d]	41.3[d]	76.2[d]
Sr. enlisted	70.0	34.0	79.0
Jr. officer	70.1	31.9	77.7
Sr. officer	70.6	30.0	76.9

NOTE: Figures in this table were estimated from the final regression model for all soldiers as shown in App. G, unless otherwise specified.

[a]The 25th and 75th percentiles varied slightly by sample. Given are the values for the total sample. The values for the single sample are 23 and 31 years and for the married sample are 25 and 35 years.

[b]Total sample.

[c]Single sample.

[d]Married sample.

cent of single black soldiers screen positively for depression, whereas 50 percent of single white soldiers so screen.

- Male soldiers, in general, tend to report better emotional well-being, higher levels of marital satisfaction, and are less likely to screen positive for depression than are female soldiers.

Consistent with relationships found in civilian populations, emotional well-being scores for male soldiers are 5 percent higher (a 3.7 point difference) than those for female soldiers. Married male soldiers report 4 percent higher (a 3.2 point difference) marital satisfaction, a relationship that was reduced to nonsignificance in the couples' sample due to the high correlation between the soldiers' and spouses' marital satisfaction. Male soldiers are also less

likely to screen positive for depression, especially married male soldiers: 33 percent of married male soldiers screen positive for depression, whereas 41 percent of married female soldiers so screen.

- Income and education are only weakly related to soldiers' well-being.

Soldiers with higher incomes report better emotional well-being ($p < 0.08$) and are less likely to screen positive for depression. For example, 42 percent of soldiers with family incomes of approximately $7800 screen positive for depression, whereas 38 percent of soldiers with family income of $17,000 so screen. The income differences are not strong enough, however, to be detected in separate models of single or married soldiers.

Although education is not related to soldiers' level of emotional well-being, less educated soldiers are more likely to screen positive for depression ($p < 0.06$), especially less educated married soldiers: 38 percent of married soldiers with only a high school education screen positive for depression, whereas 30 percent of married soldiers with a bachelor's degree so screen. On the other hand, less educated married soldiers are more satisfied with the communication and support provided by their marriage.

- There is some variation in levels of soldiers' well-being by rank that tends to differ by marital status.

Junior enlisted soldiers have poorer emotional well-being than senior enlisted and senior officers, especially in the married sample. They also report lower levels of marital satisfaction. Among single soldiers, junior officers are the least likely to screen positive for depression. Among married soldiers, junior enlisted are the most likely to screen positive for depression.

Family Structure

Overall, we found that single soldiers are 13 percent more likely to screen positive for depression than are married soldiers. However, single soldiers who are parents did not appear to be worse off than single soldiers without children (although there were some differences by gender). Similarly, there were no differences in levels of well-being between soldiers married to other soldiers and soldiers married to civilians. In all cases, married soldiers not accompanied by their families were most likely to report lower levels of well-being than those accompanied by their families (see Table 3.3).

Our key findings include the following.

- Single and married soldiers do not differ in level of emotional well-being. However, married soldiers are less likely to screen positive for depression: 38 percent of married soldiers screen depressed compared to 43 percent of single soldiers screening positive for depression.

In the sample of single soldiers, single parents accompanied by children do not differ in their emotional well-being or likelihood of screening positive for depression from singles without children. Similarly, there are no differences in emotional well-being between either single male soldiers with accompanied children or single female soldiers without children and single female soldiers with accompanied children. However, 66 percent of single male soldiers with accompanied children screen depressed, and a smaller proportion (49 percent) of single female soldiers with accompanied children screen depressed.

Table 3.3

PREDICTIONS OF INDIVIDUAL WELL-BEING BY SOLDIERS' FAMILY CHARACTERISTICS

Family Characteristic	Emotional Well-Being (Mean on 0–100 scale)	Depression (Percent screening positive)	Marital Satisfaction (Mean on 0–100 scale)
Marital status			
Single		43.5	
Married		38.3[a]	
Accompaniment of family			
Unaccompanied by family	64.1[b]	44.2[b]	70.8[b]
Accompanied by spouse, no children	69.6	31.4	80.2
Unaccompanied by spouse, no children	68.4	36.4	75.9
Accompanying family	69.7	34.0	76.3
Accompanied by spouse but not children	70.0	46.4	78.6
Accompaniment of children and gender			
Male, unaccompanied by children	65.0[c]	47.3[c]	
Male, accompanied by children	64.2	66.5	
Female, unaccompanied by children	61.6	53.3	
Female, accompanied by children	61.3	49.4	
Presence of children and dual military family			
Dual, children			77.4[d]
Dual, no children			76.2
Nondual, children			77.5
Nondual, no children			80.1

NOTE: Figures in this table were estimated from the final regression model for all soldiers as shown in App. G, unless otherwise specified.
[a]Total sample.
[b]Married sample.
[c]Single sample.
[d]Couple sample.

- Accompaniment by family members is associated with higher levels of well-being.

Married soldiers who are not accompanied by both their spouse and children have the poorest level of emotional well-being as compared with married soldiers accompanied by their families. They also (along with married soldiers who are accompanied by their spouse but not children) are more likely to screen positive for depression (44 and 46 percent screened positive for depression, respectively) than married soldiers accompanied by their children. Soldiers who are unaccompanied by their families are also significantly less satisfied with their marital communication and support.

- Whether a soldier is married to another soldier or a civilian is not related to emotional well-being or the likelihood of screening positive for depression.

However, highest levels of marital satisfaction occur among soldiers married to civilians and who have no children.

Army Environment and Practices

Several Army environmental factors and practices were found to be significantly related to the well-being of military members, including length of work hours, stationed in CONUS, assignment to preferred locations, and number of times separated in the past year (see Table 3.4).

- Soldiers who work longer hours have poorer emotional well-being and are more likely to screen positive for depression than are soldiers who work shorter hours. For example, 42 percent of soldiers working 65 hours a week screened positive for depression, whereas 37 percent of soldiers working 45 hours a week so screened.
- Soldiers based in the United States have higher emotional well-being (3 percent higher) and are somewhat more satisfied with their marital relationship (2 percent higher) than soldiers stationed abroad.
- Among married soldiers, those who were not assigned to their preferred location scored slightly lower on emotional well-being (a 1.4 point difference) than did those assigned to their preferred location.
- Among married soldiers, those who were separated from their families more times during the past year reported poorer emotional well-being, but the magnitude of this effect is small.

Table 3.4

PREDICTIONS OF INDIVIDUAL WELL-BEING BY SOLDIERS' MILITARY EXPERIENCE

Military Environment Characteristic	Emotional Well-Being (Mean on 0–100 scale)	Depression (Percent screening positive)	Marital Satisfaction (Mean on 0–100 scale)
Hours worked per week			
45 hr	70.0[a]	37.3[a]	
65 hr	66.6	41.7	
Installation location			
CONUS	68.5[a]		78.0[b]
OCONUS	66.4		76.4
Assigned to preferred location			
No	68.3[b]		
Yes	69.7		
Times separated past year			
0 times	70.0[b]		
4 times	68.5		

NOTE: Figures in this table were estimated from the final regression model for all soldiers as shown in App. G, unless otherwise specified.

[a]Total sample.

[b]Married sample.

Other characteristics of the installation at which soldiers were stationed—installation size, primary mission, or proximity to an urban center—were not related to soldier well-being. Nor were a number of other military environmental factors, including whether or not living on base, commuting time, length of separations during the past year, and frequency of PCS moves.

Perceptions of Army Support and Practices

Of all the factors tested in our models, perceptions were most frequently found to be related to well-being, after controlling for all other factors, including actual and reported experience with Army practices (see previous subsection).[6]

The one variable that is consistently and strongly related to all the family and individual well-being variables in all subpopulations analyzed is perceived social support.[7] Soldiers who perceive that a variety of support is available to them when needed report significantly better emotional well-being, lower prevalence of depression, and more satisfaction with their marital relationship than do those military members who perceive less frequent availability of social support when needed. For example, the percentage of soldiers who screen positive for depression is 48 percent versus 31 percent for those who feel unsupported and supported, respectively (at the 25th and 75th quartiles of the support distribution).

Perception that the Army leadership is supportive is related to higher levels of emotional well-being and lower prevalence of soldiers screening positive for depression (see Table 3.5). The association between perception of supportive Army leadership and emotional well-being is found in all samples, whereas the supportiveness of Army leadership is negatively associated with prevalence of depression primarily among single soldiers: 52 percent of single soldiers who feel Army leadership is less supportive screened positive for depression compared to 45 percent of single soldiers who feel Army leadership is more supportive (at the 25th and 75th quartiles of the distribution, respectively). Support of Army leadership is not related to the soldier's satisfaction with his or her marriage.

When the Army community is perceived as making the soldier feel welcome and helping his family get settled in their current duty station, the soldier reports better emotional well-being. The magnitude of this relationship is small, however, and is not strong enough to be detected in the single and married samples. Similarly, positive feelings about relocation assistance reported by soldiers in the couples sample is related to a decreased likelihood of screening positive for depression: 30 percent of soldiers who rated relocation assistance higher screened positive for depression compared to 36 percent of soldiers who rated it lower (at the 25th and 75th quartiles of the distribution, respectively). There is no relationship between marital satisfaction and perceptions of relocation assistance by the Army community.

The perceived necessity of time spent at work is related to well-being. Soldiers who agree that all the time spent at work in the Army is necessary are more likely to report better emotional well-being, lower prevalence of depression, and higher levels of marital satisfaction. The magnitude of the differences between groups is not large; however: 38

[6]Perceptions may modify the relationships between Army practices experienced and individual well-being. To test for this possibility, we reestimated our models excluding the perceptual variables. The results for Army environment and practice variables did not differ significantly and do not affect our conclusions about Army practices reported most strongly related to well-being.

[7]Social support was measured by the respondent's ratings of the perceived availability, in terms of frequency, of tangible, emotional, and informational support from others. A high score (on a scale of 0 to 100) indicated that the soldier felt supported by others most or all of the time.

Table 3.5

PREDICTIONS OF INDIVIDUAL WELL-BEING BY SOLDIERS' PERCEPTIONS

Perception	Emotional Well-Being (Mean on 0–100 scale)	Depression (Percent screening positive)	Marital Satisfaction (Mean on 0–100 scale)
Support of Army leadership[a]			
25th percentile (25 on scale)	66.2[b]	51.9[c]	
75th percentile (67 on scale)	69.1	45.2	
Relocation assistance[a]			
25th percentile (20 on scale)	67.2[b]	35.7[d]	
75th percentile (60 on scale)	68.1	29.8	
Necessity of time on duty			
Somewhat necessary	67.2[b]	41.0[b]	77.2[e]
Very necessary	68.7	38.5	77.8
Necessity of PCS moves			
Somewhat unnecessary	68.4[e]		76.9[e]
Very necessary	69.8		77.7
Comparison of Army and civilian life			
Civilian somewhat better	68.6[e]	36.4[e]	
Army somewhat better	69.8	32.5	
Adequacy of income			
Somewhat adequate	67.3[b]	41.0[b]	77.2[e]
Adequate	69.3	36.6	78.2
Social support[f]			
25th percentile (45 on scale)	64.2[b]	47.6[b]	72.8[e]
75th percentile (85 on scale)	72.5	30.7	83.5

NOTE: Figures in this table were estimated from the final regression model for all soldiers as shown in App. G, unless otherwise specified.
[a]Scores at the 25th and 75th percentile on a 0–100 scale.
[b]Total sample.
[c]Single sample.
[d]Couples sample.
[e]Married sample.
[f]Scores at the 25th and 75th percentile on a 0–100 scale for the total sample. Married sample values at these percentiles were 50 and 90.

percent of soldiers who report that the amount of time spent at work is very necessary (at the 75th quartile of the scale range) screen positive for depression, whereas 41 percent of soldiers who report that the amount of time spent at work is only somewhat necessary (the 25th quartile) so screen.

Similarly, soldiers who agree that all PCS moves are necessary are more likely to report better emotional well-being (this is primarily true among married soldiers) and higher levels of marital satisfaction. Agreement with the necessity of PCS moves is not related to prevalence of depression. The perceived necessity of separations is not related to any of the well-being measures.

Soldiers who rate Army life as better than civilian life—in terms of job security, pay, retirement, and other benefits, and for their family—are more likely to report better emotional well-being and are less likely to screen positive for depression. This is particularly true of married soldiers. Thirty-two percent of married soldiers who rate Army life as somewhat better than civilian screen positive for depression, whereas 36 percent of married soldiers who rate civilian life as somewhat better so screen (at the 25th and 75th quartiles of the distribution, respectively).

The rating of household income as adequate for meeting needs is also related to well-being. Soldiers who perceive that their income is adequate report better emotional well-being, lower prevalence of depression, and more satisfaction with their marriage. Adequacy of income was not significantly related to marital satisfaction in the couples sample after accounting for spouse characteristics. It may be that the perception of income adequacy influences the spouse's sense of marital satisfaction and well-being, which in turn influences the military member's satisfaction with components of his or her marriage.

We should note, however, that in this, as in all of our previous results, the direction of causality cannot be determined. Depression has been found to be associated with being more withdrawn and having fewer social contacts and supports; at the same time, fewer supports may also lead to lower emotional well-being and higher risk for depression.

Spouse Characteristics

After controlling for the individual characteristics of the soldier and for variations in the military environment, few spouse characteristics were found to be independently related to soldiers' well-being (see Table 3.6).

The strongest and most consistent finding was the relationship between soldiers' reports of their own emotional well-being, depression, and marital satisfaction and those of their spouses. Soldiers whose spouses report high emotional well-being are more likely to have high emotional well-being themselves and to rate high their own satisfaction with their marriage. Soldiers whose spouses do not screen positive for depression are also less likely to screen depressed themselves.

Finally, how spouses in Army families divide the household chores and family responsibilities between themselves consistently is associated with the well-being of soldiers and their families. For example, soldiers who report performing most of the household jobs report lower emotional well-being, are more likely to screen positive for depression, and are less satisfied with their marital relationship than soldiers whose spouse does most of the household chores.

SUMMARY

Army soldiers appear to exhibit levels of well-being that are lower than those found in civilian populations. Within the Army population, variables found to be associated with higher levels of well-being were fairly consistent across our three indicators of individual well-being, although some variables were more important depending upon whether soldiers were single or married. In general, higher levels of well-being are found among soldiers who are black and male, and who have higher incomes. Rank is also associated with some aspects of well-being, with junior enlisted soldiers reporting poorer emotional well-being. Soldiers who are single parents do not appear to be worse off than single soldiers without children. However, male single parents are more likely to screen positive for depression than other

Table 3.6

PREDICTIONS OF INDIVIDUAL SOLDIER WELL-BEING BY SPOUSE CHARACTERISTICS

Spouse Characteristic	Emotional Well-Being (Mean on 0–100 scale)	Depression (Percent screening positive)	Marital Satisfaction (Mean on 0–100 scale)
Spouse emotional well-being[a]			
25th percentile (56 on scale)	67.9[b]		77.4[b]
75th percentile (84 on scale)	72.7		79.8
Spouse depressed			
Yes		59.6[b]	
No		45.3	
Spouse marital satisfaction[a]			
25th percentile (69 on scale)		34.7[b]	75.8[b]
75th percentile (94 on scale)		29.5	83.9
Division of labor			
Shares family chores	70.6[b]	51.8[b]	79.6[b]
Does family chores mostly	68.3	56.5	74.7
Spouse does family chores mostly	70.7	46.6	80.1

NOTE: Figures in this table were estimated from the final regression model for all soldiers as shown in App. G, unless otherwise specified.

[a]Scores at the 25th and 75th percentile on a 0–100 scale.

[b]Couples sample.

groups of soldiers. Soldiers married to other soldiers also do not appear to be worse off than soldiers married to civilians. Accompaniment to duty stations appears to play a significant role in level of well-being. Married soldiers accompanied by their families are more likely to report higher levels of well-being.

Among Army practices, longer hours worked, especially among married soldiers, contribute to lower levels of soldier well-being. Soldiers who live in CONUS are more likely to report higher emotional well-being and higher levels of satisfaction with their marital relationship. This finding holds after accounting for the possibility that soldiers living in CONUS are more likely to be accompanied by their families.

Among married soldiers, those separated from their families more frequently during the year report poorer emotional well-being. Assignment to a preferred location is weakly related to emotional well-being among married soldiers.

Other environmental characteristics and military practices, including length and frequency of separations and frequency of PCS moves, are not associated with well-being. This finding is somewhat surprising, given the hypothesis that soldiers are subjected to numerous stresses (due to military practices) that are not found in civilian life. In general populations,

stress has been found to impact negatively on well-being (Pearlin et al., 1981). One reason for discrepant findings may be that certain Army practices, such as frequent PCS moves, are expected by the soldiers. Previous research suggests that increases in the ability to predict, anticipate, or understand an aversive stimulus often reduce stress (Averill, 1973; Seligman, 1975). Thus, changing a person's interpretation of an objective situation (e.g., by providing information) can lessen threat (Johnson and Levanthal, 1974).

A number of perceptions held by soldiers are associated with their reports of well-being. In part, this is to be expected since perceptions and ratings of well-being are subjective measures that tend to be correlated. In particular, perceptions of social support, both from the Army and from family and friends, are strongly associated with well-being. Other perceptions associated with higher levels of well-being are positive ratings of the adequacy of household income to meet needs, the necessity of time spent at work and PCS moves, and the perception that a career in the Army provides more advantages to soldiers and their families than a career they could realistically have in civilian life. Finally, the soldier's well-being is significantly related to the well-being of his or her spouse. Few other spouse characteristics are related to soldiers' well-being besides division of labor within the household. Perhaps because of the long hours spent at work, soldiers report lower levels of well-being and satisfaction with their marriage if they also perform most or all of the household chores.

We noted earlier that lower levels of well-being, particularly depression, have been linked in past research to poor social and role functioning. We now examine what factors, including well-being, are associated with the functioning of soldiers in the Army.

IV. SOLDIER INDIVIDUAL READINESS

As more soldiers are married to other soldiers or to civilian spouses who are working and as more are accompanied by family members in the United States and abroad, the Army will be drawn further into the family concerns that face Army personnel (Morrison et al., 1989). But how and to what extent do family (including single parenthood) responsibilities affect soldiers' behavior, motivations, and attitudes toward the Army and its mission? This basic question is key to determining whether and how Army family policies can be shaped to positively affect retention and readiness. This section focuses on the relationship of family and other factors to individual readiness.

DEFINING INDIVIDUAL READINESS

Soldiers' individual readiness refers to aspects of individual behavior and motivation that may affect soldiers' peacetime mission performance and their preparedness to deploy or perform in combat.

We do not consider aspects of readiness that go beyond individual motivation and behavior, such as equipment status and organization and training of personnel, although these too must be considered in any broader analysis of Army readiness. We focus on individual readiness because it is at this level that the effect of Army families is most likely to be experienced. Specifically, we wish to understand how family demands and concerns affect individual behavior, and how the Army environment (and perceptions of that environment) influences behavior among soldiers with and without family responsibilities. This focus distinguishes two general policy strategies for enhancing or maintaining individual readiness in the Army: (1) strategies that focus on the composition of individuals in the Army—for example, policies that regulate the proportion of women, single parents, or dual military member couples in the force, and (2) strategies that focus on Army practices or programs—for example, policies that offset or reduce the stress that Army demands place on soldiers and their families.

The concept of individual readiness developed for this study is based on extensive pilot interviews with senior and junior officers, enlisted personnel, spouses, and service providers at six Army installations located in the United States, Germany, and Korea.[1] The concept of individual readiness that emerged from this pilot work was consistent across locations and perspectives. It is multidimensional and has, at its core, the idea that the soldier is available for duty, ready to deploy, and able to perform the Army mission. The study measured three problems affecting readiness:

- Job-related problems
- Lost duty time
- Absence from alerts or deployments

Another aspect of individual readiness is the willingness of soldiers to become committed to the Army as an institution and to continue their service in the Army. Although the

[1]The installations and communities visited included Ft. Gordon, Ft. Hood, and Ft. Ord in the continental United States; Schweinfurt and Karlsruhe in Germany; and Youngsan, Seoul, in Korea.

Army does not wish to retain all of those recruited for service, it is desirable to foster attitudes of loyalty and commitment, both to enhance soldier morale and motivation and to allow selective retention of the most capable soldiers. The study included two indicators of career involvement:

- Years expected to serve in the Army[2]
- Attitudes of commitment to the Army

A final aspect of readiness that is relevant to soldiers who have families is the extent to which the soldiers have confidence that their families can get along and be self-sufficient without them. Soldiers who have greater confidence in the self-sufficiency of their families are believed to be better able to fulfill the demands of their Army missions, particularly when deployed, because they are less distracted by family-related concerns. The study included two measures of confidence in family self-sufficiency during a military deployment:

- Confidence in spouse to take responsibility for family (spouse self-sufficiency)
- Adequacy of child-care arrangements for soldiers needing child care during deployment

MEASURING INDIVIDUAL READINESS

The study relied on self-reported measures of readiness that could be assessed using the survey questionnaire. To maximize reliability of these reports, we asked about each soldier's behavior or experiences during a short period of time preceding the interview (e.g., lost duty time over the past month). Still, we do not know how well these reports would match actual behavior seen from an outside observer's perspective, a limitation already noted in Sec. II.

How each of our seven indicators of readiness was actually measured is described briefly below.

Job-Related Problems

Our measure of job-related problems is based on soldiers' reports of the frequency of various types of problems experienced during the past month while on duty. The following seven problems were rated from 1 (happened none of the time) to 5 (happened all of the time): My mind was not on the job; I lost my temper; I accomplished less than I would like; I was not at my best; I was more likely to make mistakes; I was criticized by coworkers; I had problems with a superior. To create a total job-related problems score, ratings on each item were averaged across the seven items and resulting scores were standardized to a range of 0–100,[3] where 0 represents the lowest possible level of job-related difficulties and 100 the highest possible. The internal consistency of the scale was high (alpha = 0.88).

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[2]This is similar to "retention," or actual time of service in the armed forces. Because this study was not designed to examine actual number of years served in the Army among a particular cohort of recruits, we focused instead on career intentions. Hence, and consistent with its meaning in the Army generally, our concept of individual readiness subsumes that of retention.

[3]Standardization resulted in initial average scores rescored as follows: 1 = 0, 2 = 25, 3 = 50, 4 = 75, and 5 = 100.

Lost Duty Time

To determine the extent of lost duty time, the survey asked soldiers how much time they took off from duty for various types of *personal* and *family* reasons in the past month (excluding leave time). Personal reasons included transportation, pregnancy, health, personal business, and other personal reasons. Family reasons included caring for children, helping spouse, family business, family transportation, and other family matters. The total time taken off duty across all these reasons was summed. The distribution of total lost duty time was extremely skewed, with most soldiers taking little time off duty, but a few taking a great deal of time off. For analytic purposes, therefore, our indicator of lost duty time was the proportion of soldiers taking as much as two days (16 hours) off duty for personal or family reasons in the past month. Because the average work hours in the Army far exceed those of a typical 40-hour work week, we also report this information to provide a context in which to evaluate time lost for personal or family reasons.

Absence from Alerts or Deployments

We examined the availability of soldiers for deployment in actual rather than hypothetical situations. Specifically, the survey asked whether soldiers had been late for or missed their most recent no-notice alert (if one occurred within the past year), and if they left early from their most recent planned deployment or field exercise of two weeks or more (if one occurred within the past year). If either of these types of absences was reported, soldiers were asked to indicate the reason for the absence. The proportion of soldiers with absences from these alerts or deployments due to personal or family reasons was the indicator of readiness employed for these analyses. Because absences from both no-notice alerts and planned deployments were quite rare, we combined the two.

Years Expected to Serve in the Army

Career intentions were measured by asking soldiers how many total years of active duty they expect to have served when they finally leave the armed forces.

Attitudes of Commitment to the Army

This measure focuses on the extent to which the soldier identifies with the Army as an organization, and shares the values and goals of the Army. Drawing on a prior scale of organizational commitment reported by Porter et al. (1974), we developed four items to assess commitment to the Army. These consist of ratings of agreement with the following statements: (1) I talk up the Army to my friends as a great place to be associated with; (2) I find that my values and the Army's values are very similar; (3) There is not much to be gained for me by sticking with the Army indefinitely; (4) The Army is the best of all places for me to work. Each statement was rated by soldiers from 1 (strongly agree) to 5 (strongly disagree). After reverse-scoring the third item, ratings were averaged across the four items and the resulting score was standardized to range from 0 (lowest possible commitment score) to 100 (highest possible commitment score). The commitment scale had good internal consistency, with alpha = 0.81.

Confidence in Spouse Self-Sufficiency

The ability of the spouse to take responsibility for family matters in a soldier's absence is considered an essential ingredient to the readiness of married soldiers. Although a self-sufficient family may not guarantee a soldier's readiness, a soldier's ability to deploy and perform is likely to be diminished by an overly dependent spouse. The survey asked soldiers how sure they were that their spouse could take "full responsibility" for various types of family matters if a military conflict separated them from their families for six months or more. Soldiers responded with one of six levels of confidence that ranged from "completely sure" to "completely unsure" for each of the following six categories of family matters: child care, family member's health, family finances, housing, emotional or parenting matters, and evacuation of family members. In addition, soldiers were asked how sure they were that their spouse would adequately care for their children if they were separated from their families for six months or more because of a military conflict, which again was rated from "completely sure" to "completely unsure." The seven ratings were summed to form a total score of level of confidence in the spouse to take responsibility for family matters. The total score was standardized to a range of 0 (lowest possible confidence) to 100 (highest possible confidence). The internal consistency of this scale was very high (alpha = 0.95).

Adequacy of Child-Care Arrangements

Military members must rely on a variety of child-care arrangements to be ready for deployment. To obtain information regarding the adequacy of child-care arrangements during deployment for both married and single parents, the survey asked soldiers to rate the adequacy of their child-care arrangements during their most recent planned deployment or exercise of two weeks or longer (if one occurred in the past year). A second item asked soldiers to rate these same child-care arrangements if they had been deployed for six months or more. Possible ratings for each of these items were "excellent, very good, good, fair, or poor," with the additional category of "would not have been possible for that period of time" for the second item. As an indicator of inadequate child-care arrangements during deployment, we examined the proportion of soldiers (among those who needed child care) who reported their child-care arrangements were fair or poor during their most recent deployment of two weeks or longer, or would have been fair, poor, or impossible if they had been deployed for six months or more.

LEVELS OF INDIVIDUAL READINESS

The reported levels of readiness for all Army soldiers are displayed in Table 4.1.

Overall, soldiers report fairly low levels of job-related problems, a mean score of 30 indicating that job difficulties occurred a "little" in the past month. Almost 18 percent of the force report having taken off two or more days (or 16 or more hours) from duty time in the past month for personal or family reasons. Although this percentage appears high, it should be viewed in the context of the long hours that military members work. On average, soldiers reported working 57-1/2 hours per week, or the equivalent of seven eight-hour work days per week. Taking half a day off work per week for personal or family reasons, then, reduces work time by 7 percent, to about 53 hours a week.

Table 4.1

READINESS INDICATORS AMONG ALL SOLDIERS

Job-related problems	
Mean job-related problems score	**29.6**
	0.4
Lost duty time	
% losing 2 days or more in past month for personal/family reasons	**17.9**
	1.0
Mean usual hours worked/week	**57.5**
	0.4
Absence for alert/deployment	
% missing/late to no-notice alert or leaving deployment early in past year for personal/family reasons	**3.9**
	0.6
% missing/late to alert because not contacted or left deployment early because military reassigned	**10.1**
	1.0
Commitment to Army	
Mean commitment score	**50.9**
	0.6
Career intentions	
Mean expected years of service	**13.8**
	0.2
% expecting to serve 20 years or more	**65.3**
	1.4
Family self-sufficiency	
Mean confidence in spouse to take care of family	**86.4**
	0.6
% with children using child care during employment	**38.0**
	2.4
% with inadequate child care during deployment among those using	**35.5**
	3.5

NOTE: Numbers in italics note the margin of error with 95 percent confidence for the measure immediately above.

About 4 percent of soldiers had been absent/late from a no-notice alert or left early from a planned deployment in the past year **for personal or family reasons**. Although total absences from alerts or deployments in the past year were common (one out of every six soldiers reported at least one such absence), nearly two-thirds of these are due to Army-related reasons—not being contacted for an alert or leaving a deployment early because of military reassignment.

In the force as a whole,[4] about 65 percent of military personnel plan to have a full career in the Army. Attitudes of commitment toward the Army are, on average, in the middle of the scale, and are highly correlated with expected years of service ($r = 0.57$).

Overall, married soldiers tend to have fairly high confidence (score 86) in their spouses' self-sufficiency. A mean score ranging between 70 and 90 points on this scale is equivalent to being "very sure" that their spouses could take full responsibility for family matters such as child care, health, finances, housing, emotional/parenting matters, and evacuation of the family. Finally, 38 percent of soldiers with children (21 percent of all soldiers) report using

[4]Excluding E1 and E2 ranks.

child care during a deployment of two weeks or more during the past year; over one-third of those who did use child-care arrangements on these occasions indicate that they were only fair or poor.

MAJOR FACTORS ASSOCIATED WITH INDIVIDUAL READINESS

We now discuss the key factors that our multivariate analyses found associated with soldiers' individual readiness. The factors are grouped by categories in the following order: (1) individual soldier characteristics, (2) family structure, (3) Army environment and practices, (4) soldiers' perceptions of that environment, (5) soldiers' individual well-being; and (6) spouse characteristics. The reader is reminded that throughout this discussion, the significance and magnitude of the relationship to readiness of each factor are those obtained while holding every other "predictor" constant, that is, controlling for the "effect" of all other factors considered in the analysis. To ease interpretation, the tables that follow show the predicted readiness values for each of the factors found significant at the 5 percent level or lower. The reader is referred back to Sec. II for details of the analytic techniques used and to App. H for the complete results of the multivariate regression models.

Individual Characteristics

We examined age, race (black versus other), gender, educational level, individual income, junior versus senior rank, and officer versus enlisted status. Table 4.2 summarizes the relationship between these demographic characteristics and our measures of individual readiness, other factors being equal.

Age is not related to our indicators of readiness. Age shows the strongest relationship to career involvement, with older soldiers more committed and intending to serve more years whether they were single or married. Older soldiers also have greater confidence in their spouses to take full responsibility for family matters. However, the effect of age on confidence in a spouse is reduced to nonsignificance when number of years of marriage was added in the model estimated for couples, suggesting that older soldiers have greater confidence in their spouses because they have been married longer.

Race is generally unrelated to our indicators of readiness.

Other factors being equal, **women** soldiers have fewer job problems than men (difference of 1.3 on the scale), but with respect to some other indicators tend to have lower levels of individual readiness than men. Women are 1.3 times more likely than men to have taken off two or more days from duty time for personal or family reasons, but absences for alerts and deployments do not significantly differ between men and women. Although gender is not related to commitment to the Army, it is strongly associated with career intentions. Women soldiers plan a shorter career in the Army than their male counterparts by about two years. This gender effect is found for all rank groups and for both single and married soldiers. There is no significant gender difference in soldiers' perceptions of their spouses' abilities to take responsibility for family matters during deployment. But among married soldiers who used child care during their most recent deployment, female soldiers are 2.4 times more likely than males to report that their child-care arrangements were inadequate.

Education has selected effects on individual readiness. Although it is unrelated to job problems and absences from alerts and deployments, soldiers with higher educational levels are less likely to lose substantial duty time due to personal or family reasons, especially

Table 4.2

PREDICTIONS OF INDIVIDUAL READINESS BY MILITARY MEMBER INDIVIDUAL CHARACTERISTICS

Demographic Characteristic	Individual Readiness Indicator						
	Job-Related Problems (Mean on 0–100 scale)	Lost Duty Time (% with > 2 days in past mo.)	Absence from Alert or Deployment (% absent from most recent)	Commitment to Army (Mean on 0–100 scale)	Expected Years of Service (Mean years)	Spouse Responsibility (Mean on 0–100 scale)	Inadequate Child Care During Deployment (% with fair to poor child care)
Age							
24 years				51.1	13.1	85.6[a]	
34 years				54.9	16.2	87.7[a]	
Gender							
Male	29.7	16.8			14.6		26.9[a]
Female	28.4	21.1			12.6		47.0[a]
Education							
High school degree		18.7			14.7	87.3[a]	
College degree		15.2			13.9	85.5[a]	
Income (per capita)							
$ 7,736 (25th percentile)			1.0	51.6	13.9		
$17,253 (75th percentile)			4.4	53.3	14.9		
Rank							
Officer			0.8	55.3	16.4		
Enlisted			4.1	52.0	14.1		
Senior		15.8	2.5	53.3	16.0		
Junior		18.9	4.4	51.6	12.9		

NOTE: Figures in this table were estimated from the final regression model for all soldiers, as shown in App. H, unless otherwise specified.

[a]Estimates for married soldiers.

among married soldiers. Some 19 percent of soldiers with a high school education take two or more days off duty in the past month for personal or family reasons; the comparable rate for soldiers with a bachelor's degree is 15 percent, other factors being equal. Higher levels of education, however, are related to intentions to serve fewer years in the Army, with every additional year of education associated with a decrease of 4.5 months of intended length of service. And soldiers with higher levels of education tend to have lower confidence in their spouses to take responsibility for family matters in their absence (each year of education was associated with a one-point drop in confidence scale scores).

In contrast to education, higher **household income** is associated with greater career involvement, other factors being equal. Those with higher income levels tend to be more committed to the Army and plan a longer Army career. Income level is not related to job problems, availability for duty, or spouse self-sufficiency, with the exception that those with higher household incomes are more likely to be absent from alerts or deployments.

Higher rank is consistently associated with greater readiness after controlling for other individual and environmental factors. Officers are less likely to lose duty time or be absent for an alert or deployment, and are more involved in their Army careers than enlisted personnel. Among both officers and enlisted soldiers, senior staff are less likely to be absent for an alert or deployment and are also more involved in their careers in the Army than junior staff. Rank was not significantly related to perceptions of spouse self-sufficiency.

Family Structure

For several indicators, married soldiers have higher levels of readiness than single soldiers, other things being equal (Table 4.3). Married soldiers report fewer job problems (difference of 1.4 on the scale), are more committed to the Army, and expect to serve in the Army an average of 1.4 years longer. Marriage has a negative relationship, however, to availability for duty, with married soldiers 1.4 times more likely to take two or more days off duty for personal or family reasons than single soldiers. Among married soldiers, whether or not the spouse accompanied the military member is unrelated to all indicators of readiness.

Having children, like being married, has a negative association with availability for duty, and a positive association with career involvement. Having accompanying children, among both single and married soldiers, is related to taking more time off duty for personal or family reasons, and also to absences from alerts or deployments for personal or family reasons. Soldiers with accompanying children are 1.4 times more likely to take two or more days off duty time in the past month and nearly three times more likely to be absent from an alert or deployment for personal or family reasons than soldiers without children. On the other hand, soldiers with children, whether or not the children accompanied them, are more committed to the Army and plan more years of service in the military. Soldiers with accompanying children, for example, plan an average of 1.7 years more of active duty service than soldiers without children.

Having children interacts with gender in its impact on perceptions of spouses' ability to take full responsibility for family matters. Among women, those with accompanying children have less confidence in their spouses than those without accompanying children, while among men, confidence in a spouse is higher for those with children.

For three readiness indicators—job problems, absences from an alert or deployment, and adequacy of child-care arrangements during deployment—soldiers in dual military member marriages have lower levels of readiness than soldiers married to civilians. Dual

Table 4.3

PREDICTIONS OF READINESS INDICATORS BY FAMILY STRUCTURE CHARACTERISTICS

Demographic Characteristic	Individual Readiness Indicator						
	Job-Related Problems (Mean on 0–100 scale)	Lost Duty Time (% with > 2 days in past mo.)	Absence from Alert or Deployment (% absent from most recent)	Commitment to Army (Mean on 0–100 scale)	Expected Years of Service (Mean years)	Spouse Responsibility (Mean on 0–100 scale)	Inadequate Child Care During Deployment (% with fair to poor child care)
Marital status							
Single	30.5	14.2		50.9	13.6		
Married	29.0	19.4		53.4	14.9		
Presence of children							
No children		13.1	2.3	51.4	13.8		
Nonaccompanying children		15.7	4.3	54.0	14.7		
Accompanying children		19.7	6.3	53.9	15.5		
Dual military family							
Married to civilian	27.5[a]		2.3[a]				23.3[a]
Married to soldier	30.7[a]		5.6[a]				49.0[a]
Gender and presence of children							
Male with accompanying children					17.3[a]	88.2[a]	
Male without accompanying children					17.1[a]	84.9[a]	
Female with accompanying children					15.8[a]	83.2[a]	
Female without accompanying children					14.2[a]	85.0[a]	

NOTE: Figures in this table were estimated from the final regression model for all soldiers, as shown in App. H, unless otherwise specified.

[a]Estimates for married soldiers.

military members compared to other couples score over three points higher on the job-related problems scale, are about 2.5 times more likely to have been absent from an alert or deployment for personal or family reasons, and are more than twice as likely to report inadequate child-care arrangements during deployment. Being in a dual military member marriage is not significantly associated with commitment to the Army, expected years of service, or perceptions of the ability of spouses to handle family matters.

Army Environment and Practices

Characteristics of the installation in which soldiers were stationed have only isolated effects on indicators of readiness, other things being equal (Table 4.4). Whether soldiers are in CONUS, Germany, or Korea, for example, is unrelated to any aspect of individual

Table 4.4

PREDICTIONS OF READINESS INDICATORS BY MILITARY ENVIRONMENT CHARACTERISTICS

	Individual Readiness Indicator						
Demographic Characteristic	Job-Related Problems (Mean on 0–100 scale)	Lost Duty Time (% with > 2 days in past mo.)	Absence from Alert or Deployment (% absent from most recent)	Commitment to Army (Mean on 0–100 scale)	Expected Years of Service (Mean years)	Spouse Responsibility (Mean on 0–100 scale)	Inadequate Child Care During Deployment (% with fair to poor child care)
Installation location							
CONUS							23.7[a]
OCONUS							34.7[a]
Urban					10.3[b]		
Suburban					9.5[b]		
Rural					9.0[b]		
Installation mission							
Combat				54.8[a]		87.4[a]	
Support				56.3[a]		86.1[a]	
Training				57.5[a]		84.7[a]	
Unit mission							
Combat	30.2						
Other	28.8						
Housing							
On-base							33.4[a]
Off-base							24.2[a]
Commuting time							
5 minutes				46.1[b]			
20 minutes				48.6[b]			
Frequency of PCS moves							
Every 3 years					21.7[c]		
Every 2 years					23.7[c]		
Hours worked/week							
45	28.4			48.5	13.8		
65	30.1			54.2	14.7		
Months separated from family							
2				54.9[a]			
4				56.8[a]			

NOTE: Figures in this table were estimated from the final regression model for all soldiers, as shown in App. H, unless otherwise specified.

[a]Estimates for married soldiers.

[b]Estimates for single soldiers.

[c]Estimates for senior officers.

readiness, except that among soldiers using child care during their most recent deployment, those in OCONUS installations are 1.4 times more likely than those in CONUS to report that their child-care arrangements during deployment are inadequate.

Installation size is not associated with our readiness indicators, nor is location of the installation relative to an urban center, with the exception of a tendency for single soldiers to plan a shorter career in the Army (by about one year) when stationed in a rural or suburban installation relative to an urban installation. Finally, being located at a combat installation, relative to a support or training installation, is associated with a lower level of commitment to the Army (by about two scale points), but only among married soldiers. Additionally, married soldiers in combat installations have slightly more confidence in the self-sufficiency of their spouse in the event of deployment during a military conflict than married soldiers on support installations, who were in turn more confident in their spouses than married soldiers in training installations (a mean difference of about 1.3 points on the confidence scale between each group).

Other Army environment indicators are associated with selected aspects of individual readiness. Soldiers in combat units have higher levels of job problems (a difference of about 1.4 on the job problem scale). Requesting and receiving their preference for their current PCS assignment are not related to our indicators of readiness among soldiers. Whether or not soldiers lived on- or off-base at their current installation is unrelated to indicators of readiness, except that on-base married soldiers were 1.6 times more likely to report inadequate child-care arrangements during deployment than off-base married soldiers. A longer commuting time to the duty station is associated with higher levels of commitment among single soldiers.

Military practices (PCS rotations, working hours, family separations) are associated with some indicators of readiness, all other things being equal. Working long hours predicts more job-related problems, particularly among single soldiers. For example, soldiers working 45 hours a week have an expected job problems score two points lower than those working 65 hours a week. On the other hand, working longer hours is associated with slightly higher levels of commitment and plans for a longer Army career. Number and length of family separations in the past year are generally not associated with individual readiness. Finally, PCS rotations are generally unrelated to readiness indicators, except that among senior officers longer career intentions were positively associated with a higher rate of PCS rotation.

Perceptions of Army Environment and Practices

Generally, poorer perceptions of the Army are associated with lower individual readiness (Table 4.5).

Perceptions that Army leadership is supportive of families are associated with fewer job problems and a higher level of commitment to the Army for both single and married soldiers, and, for officers, are also associated with plans to serve longer in the Army. Perceptions of Army support of families are also associated with a lower probability of reporting inadequate child care during deployment, among those who used child care.

Similarly, the perceptions that all the time spent at work is very necessary for Army mission accomplishment are associated with fewer job-related problems and greater Army career involvement. Perceptions of all the time at work being very necessary are also related to a lower probability of having inadequate child care during deployment.

Table 4.5

PREDICTIONS OF READINESS INDICATORS BY SOLDIERS' PERCEPTIONS OF ARMY

Demographic Characteristic	Individual Readiness Indicator						
	Job-Related Problems (Mean on 0–100 scale)	Lost Duty Time (% with > 2 days in past mo.)	Absence from Alert or Deployment (% absent from most recent)	Commitment to Army (Mean on 0–100 scale)	Expected Years of Service (Mean years)	Spouse Responsibility (Mean on 0–100 scale)	Inadequate Child Care During Deployment (% with fair to poor child care)
Support of Army leadership							
25th percentile (25 on scale)	31.1			49.2			33.1
75th percentile (67 on scale)	28.1			55.5			24.8
Necessity of time on duty							
Somewhat necessary	30.1			51.5	14.3		33.8
Very necessary	28.5			54.8	14.6		24.5
Necessity of PCS moves							
Somewhat unnecessary				50.4	14.2		
Very necessary				53.7	14.5		
Necessity of family separations							
Somewhat unnecessary		20.6			16.3[a]		
Very necessary		17.3			17.2[a]		
Comparison of Army and civilian life							
Civilian somewhat better				46.4	13.2	85.7[a]	
Army somewhat better				58.7	15.7	87.2[a]	
Adequacy of income							
Somewhat adequate		17.5			14.4	86.3[a]	
Adequate		16.0			14.2	87.5[a]	
Social support							
25th percentile (50 on scale)	29.2					85.4[a]	30.1[a]
75th percentile (90 on scale)	30.1					88.0[a]	24.2[a]

NOTE: Figures in this table were estimated from the final regression model for all soldiers, as shown in App. H, unless otherwise specified.

[a]Estimates for married soldiers.

Perceptions of the necessity of PCS moves are significantly associated only with commitment to the Army—soldiers viewing PCS moves as more necessary to mission accomplishment tend to be more committed to the Army generally.

Perceptions of the necessity of frequent family separations are related to lost duty time and career intentions. Married soldiers who tended to see family separations as more necessary are less likely to take time off duty for personal or family reasons and intend to have a longer career in the Army.

Perceptions that a career in the Army provides more advantages to soldiers and their families than a career they could have in civilian life are strongly associated with greater commitment to the Army and plans for a longer career in the Army. Those who perceive an Army career to have greater benefits than a civilian career also have greater confidence in their spouses to take full responsibility for their families in their absence.

Among married soldiers, perceptions of the adequacy of their household income to meet their needs are, independent of actual Army pay, associated with intentions to serve fewer years in the Army. Among couples, perceived adequacy of income influences soldiers' confidence in their spouses to handle family matters, once controlling for spouse characteristics. Those who perceive their incomes to be more adequate report more confidence in their spouses to handle family matters if they are deployed during a military conflict.

Finally, perceptions of greater availability of social support are associated with some aspects of readiness. Greater availability of social support is associated with higher levels of job problems. In addition, married soldiers with more available social support have greater confidence in their spouses to handle family matters, and report more adequate child-care arrangements during deployment. Perceived social support is unrelated to availability for duty, commitment to the Army, or career intentions.

Individual Well-Being

General emotional well-being and having been screened positive for depression in the past year are associated with several aspects of individual readiness, other things being equal (Table 4.6).

Emotional well-being and the absence of depression are both independently associated with fewer job-related problems. Soldiers who screened positive for depression are 1.3 times more likely than those not screened positive to take two or more days off duty for personal or family reasons in the past month, whereas higher emotional well-being is associated with fewer absences from alerts or deployments, particularly among married soldiers. Better emotional well-being is associated with greater commitment to the Army and with plans to serve more years in the Army. Finally, married soldiers who score higher on emotional well-being tend to have greater confidence in the self-sufficiency of their spouses and are less likely to report inadequate child-care arrangements during deployment.

Among married soldiers, higher levels of marital satisfaction are associated with fewer job-related problems and greater confidence in one's spouse to take full responsibility for family matters. Marital satisfaction is not associated with availability for duty, commitment, career intentions, or adequacy of child-care arrangements during deployment.

Table 4.6

PREDICTIONS OF READINESS INDICATORS BY SOLDIERS' WELL-BEING

Demographic Characteristic	Individual Readiness Indicator: Job-Related Problems (Mean on 0–100 scale)	Lost Duty Time (% with > 2 days in past mo.)	Absence from Alert or Deployment (% absent from most recent)	Commitment to Army (Mean on 0–100 scale)	Expected Years of Service (Mean years)	Spouse Responsibility (Mean on 0–100 scale)	Inadequate Child Care During Deployment (% with fair to poor child care)
Emotional well-being							
25th percentile (56)	33.3		3.8	50.5	14.1	85.8[a]	32.7
75th percentile (84)	24.0		2.8	55.3	14.9	87.5[a]	24.5
Depression screener							
Negative	28.9	15.7				87.2[a]	
Positive	30.5	19.6				85.3[a]	
Marital satisfaction							
25th percentile (69 on scale)	28.2[a]					84.7[a]	
75th percentile (94 on scale)	27.3[a]					89.9[a]	

NOTE: Figures in this table were estimated from the final regression model for all soldiers, as shown in App. H, unless otherwise specified.

[a]Estimates for married soldiers.

Spouse Characteristics

After controlling for the other factors described above, spouse characteristics, including whether employed or not, generally have little relationship to soldiers' individual readiness. Spouse characteristics, in particular, are not associated with soldiers' job-related problems or availability for duty (Table 4.7).

Only one spouse characteristic is significantly associated with soldiers' commitment to the Army and Army career intentions: married soldiers whose spouses are more committed to the Army tend to be more committed themselves and expect to serve more years in the Army. Indeed, spouses generally rate Army life relative to civilian life more highly than their military member marriage partners: a mean 64 versus 59 on a scale of 0 to 100.[5]

Spouse characteristics are also associated with soldiers' confidence in their partners to take full responsibility for family matters in their absence. Soldiers are more confident if their spouses tend to think that frequent PCS moves are necessary for Army mission accomplishment, and if they have been married longer. Soldiers are also more confident if their spouses are highly educated. Because soldiers' own education is independently associated with lower confidence in the spouse, this suggests that confidence is particularly low when the soldier has a much higher educational level than the spouse. Spouse characteristics are

[5]Aspects of Army life that spouses rate more highly than their military member partner relative to civilian life include job security, pay, retirement and other benefits, and family overall satisfaction.

Table 4.7

PREDICTIONS OF READINESS INDICATORS BY SPOUSE CHARACTERISTICS

Demographic Characteristic	Individual Readiness Indicator						
	Job-Related Problems (Mean on 0–100 scale)	Lost Duty Time (% with > 2 days in past mo.)	Absence from Alert or Deployment (% absent from most recent)	Commitment to Army (Mean on 0–100 scale)	Expected Years of Service (Mean years)	Spouse Responsibility (Mean on 0–100 scale)	Inadequate Child Care During Deployment (% with fair to poor child care)
Spouse education							
High school degree						87.9[a]	
College degree						88.8[a]	
Number of years married							
3 years						87.9[a]	
10 years						89.8[a]	
Spouse perception of necessity of PCS moves							
Somewhat unnecessary						87.7[a]	
Very necessary						89.3[a]	
Spouse commitment to Army							
25th percentile (38 on scale)				51.8[a]	16.1[a]		
75th percentile (69 on scale)				61.9[a]	18.1[a]		

NOTE: Figures in this table were estimated from the final regression model for all soldiers, as shown in App. H, unless otherwise specified.

[a]Estimates for married soldiers.

unrelated to the probability of reporting inadequate child-care arrangements during deployment.

SUMMARY

This is the first study to systematically explore the relationship between soldier individual readiness and a number of individual, family, and Army environment characteristics. Our findings are summarized in Table 4.8.

Rank is strongly and independently associated with all our individual readiness indicators except family self-sufficiency, with officers showing higher levels of readiness than enlisted personnel and senior grades showing higher levels than junior grades. Because rank differences reflect selection of individuals into different positions according to their capabilities and the effects of increasing maturity and experience in the Army, these differences are expected. There is no reason to expect family self-sufficiency or adequacy of child care to strongly influence a soldier's rank attainment. Thus, it is not surprising that rank had no strong independent relationship to the indicators of family self-sufficiency in this study.

Table 4.8

SUMMARY OF FACTORS ASSOCIATED WITH INDIVIDUAL READINESS

	Job-Related Problems	Lost Duty Time	Absence from Alert/ Deployment	Commitment to Army	Expected Years of Service	Spouse Responsibility	Inadequate Child Care During Deployment
Individual characteristics							
Age				+	+	+	
Male	+	–			+		–
Education		–			–	–	
Income			+	+	+		
Officer			–	+	+		
Senior		–	–	+	+		
Family characteristics							
Married	–	+		+	+		
Accompanying children		+	+	+	+		
Dual MM family	+		+				+
Military environment							
CONUS							–
Urbanicity					+		
Combat installation				–		+	
Combat unit	+						
On-base housing							+
Commuting time				+	+		
Frequency of PCS moves					+		
Hours worked	+			+	+		
Months separated from family				+			
Perceptions of Army							
Support of leadership	–			+			–
Necessity of time on duty	–			+	+		–
Necessity of PCS moves				+			
Necessity of family separations		–			+		
Army better than civilian life				+	+	+	
Adequacy of income					–	+	
Social support	+					+	–
Soldiers' well-being							
Emotional well-being	–		–	+	+	+	–
Depression screener	+	+				–	
Marital satisfaction	–					+	
Spouse characteristics							
Education						+	
No. years married						+	
Perceived necessity of PCS moves						+	
Commitment to Army				+	+		

Overall, the factors found associated with readiness differed across readiness domains. We summarize the major findings below for each readiness domain.

Family demands appear to have inconsistent relationships with **job-related problems.** Although having children is unrelated to job problems, married soldiers have slightly fewer problems than singles, and dual military couples have more job-related problems than other married soldiers, other factors being equal. Aspects of the military environment can lead to job problems; for example, being in a combat unit and working long hours are associated with increased job-related problems. Job-related problems are exacerbated by negative perceptions of the Army, beyond the impact of the military environment itself. Perceptions that time spent on duty is unnecessary for mission accomplishment or that the Army leadership is not supportive of families (even among singles) are independently associated with higher levels of job-related problems. Although poorer general emotional well-being, being screened positive for depression, and lower marital satisfaction are strongly and uniquely associated with more job-related problems, spouse characteristics are not associated with soldiers' job-related problems.

Job-related problems are only one indication of whether a soldier is prepared to perform his or her duty. Other aspects of job performance not assessed in this study include technical and leadership abilities. The study focused on job-related problems because they reflect ways in which Army personnel believe a soldier's performance can be influenced by stress or by family or personal problems, and because it was possible to assess job-related problems as part of our survey. Other aspects of job performance, however, could be differently affected by personal, family, and military factors.

The study's indicators of **availability for duty**—losing substantial duty time or being absent from alerts or deployments for personal or family reasons—are events that are relatively poorly predicted by the factors examined in this study, perhaps because these events tend to result more from specific circumstances than from more stable features of the individual or military environment. Nonetheless, it is with the availability for duty indicators that we observed a sizable negative association between family demands and readiness. Women soldiers tend to be less available than men, married soldiers less available than singles, soldiers with accompanying children less available than those with no children, and dual military members less available than soldiers married to civilians. We found little association of the military environment or of soldiers' perceptions of the Army with availability for duty (a notable exception being that a greater perceived necessity of family separations is associated with less lost duty time among married soldiers). Additionally, measures of well-being (general emotional well-being and depression screener) are associated with availability for duty—soldiers with poorer well-being are less available. Spouse characteristics—including whether employed or not—are not associated with availability for duty.

Factors associated with **commitment to the Army and expected years of active service** seem to tell us more about the characteristics of soldiers who become committed to an Army service career than about the effect of Army environment on career involvement. Males and those with families are more career involved than females and those without families. Soldiers who work longer hours, spend more months separated from their families, and have more PCS rotations are also more committed to an Army career. Soldiers' perceptions of the Army are associated with career involvement. Perceptions that life in the Army is better than civilian alternatives, that Army leadership is supportive of families, and that all the time on duty, PCS moves, and family separations are necessary for mission accomplishment are all positively related to Army career involvement. Finally, soldiers with higher levels of well-being are more career involved.

With respect to **spouse self-sufficiency,** female soldiers with accompanying children, other things being equal, are least confident that their spouses can take full responsibility for family matters in the event of a wartime deployment. Aspects of the military environment and soldiers' perceptions of the Army have little association with soldiers' attitudes regarding the self-sufficiency of their spouses. However, soldiers who perceived their household incomes to be more adequate had greater confidence in their spouses to take responsibility for family matters. Higher well-being and marital satisfaction scores also predicted soldiers' greater confidence in their spouses' self-sufficiency. Spouse characteristics had their strongest association with readiness in the domain of soldiers' confidence in their spouses' self-sufficiency, but even here, the number of spouse characteristics that add to the prediction of family self-sufficiency indicators is small. Soldiers have greatest confidence in their partners when they have been married longer, when their spouses are more highly educated, and when their spouses tend to perceive PCS moves as necessary for the Army mission.

Among those soldiers with dependent children who used **child-care arrangements** during their last planned deployment of two weeks or more, women and soldiers in dual military member marriages are more likely to report that these child-care arrangements are only "fair" or "poor." Few military environment factors were related to adequacy of child-care arrangements, except that soldiers stationed overseas relative to those who are CONUS-based and soldiers on-base relative to those off-base are more likely to report inadequate child-care arrangements during deployment. Positive perceptions of the Army (i.e., seeing Army leadership as supportive, all the time spent on duty as necessary, and greater availability of social support) tend to be associated with more adequate child-care arrangements. Emotional well-being of the soldier is also related to more adequate child-care arrangements. Adequacy of child-care arrangements during deployment is unrelated, however, to spouse characteristics.

V. USE OF ARMY SERVICES

The Army offers some 65 services that support soldiers and their families and enhance their quality-of-life. The services provided range from housing and health care to relocation assistance, counseling, child care, youth activities, and educational and recreational services such as libraries and gyms. Although information about soldiers' use of some of these services has occasionally been collected for a specific service at a time (e.g., health care), this is the first study that comprehensively has collected data on how soldiers (and their spouses) use a broad array of Army-sponsored services.

In this section, we use these data to provide the first comprehensive assessment of Army-sponsored service use by soldiers. The analysis examines how use varies depending on individual and family characteristics and Army environment and practices such as overseas stationing, separation from family, and frequency of rotation. Understanding how service use varies for different subgroups within the Army can assist in making critical decisions about which support services should be expanded or reduced as the composition of the volunteer force and its families changes over time.

ARMY SERVICES EXAMINED

We collected data on some 30 Army-sponsored programs or services (see Sec. II). For this analysis, however, and to gain a thorough understanding of the role of various factors affecting the use of services by soldiers, we focused on seven representative types of services: financial assistance, medical care, mental health care, psychological counseling, and three morale, welfare, and recreation (MWR) programs—gymnasiums, clubs, and libraries. Hence, we examine support, therapeutic, and recreational services.

Financial assistance programs are available to Army personnel through a variety of sources, including Army Community Services (ACS), Army chaplain, Army Emergency Relief (AER), and the Red Cross. In addition to programs offered by these organizations, the Army offers classes in financial management.

Numerous health-care services are offered to Army personnel and their families. These services fall into two distinct categories: physical health care and mental health care. Facilities available for physical health care include an emergency room, physician's office or clinic, and hospital. Mental-health-care services are offered by a variety of providers, including clinical social workers, clinical psychologists, and psychiatrists in clinics and hospitals.

The Army also offers a number of programs to provide formal and informal counseling and guidance. These services are provided outside of the Army health-care system by other Army programs, including Army Drug and Alcohol Counseling Centers, Army Family Life Centers, Army chaplains, Army Community Services, and the Red Cross.

In addition to these support or therapeutic services, the Army operates a variety of educational and recreational programs. The types of programs vary considerably but usually include library services, arts and crafts, auto crafts, music and theater, recreation centers, gymnasiums, bowling facilities, outdoor recreation facilities and athletic programs, and clubs. For the purposes of this analysis, we looked at three programs that provide a broad range of educational, sports, and recreational services. We selected programs that are

available at almost every installation: library services, gymnasiums (indoor athletics), and clubs.

MEASURING SERVICE USE

We measured service use in two ways:

- Probability of use: the proportion of all or subgroups of soldiers who used a specific service at least once over a six-month period.
- Intensity of use: the number of times a soldier used the service over that same six-month period, including nonusers.

LEVELS OF SERVICE USE

The reported levels of service use for each of the seven services examined are shown in Table 5.1.

Nearly all soldiers—four out of five—use at least one service provided by Army medical facilities, and users make on average one visit per month. This pattern of use is generally higher than for the civilian population. In health maintenance organization (HMO) settings, frequency of utilization averages 3.7 visits per year, although rates as high as 8.5 per year are reported (Kelly Communications, 1989). Most HMOs have relatively young working-age populations enrolled that are comparable to Army personnel (Luft, 1981; Interstudy, 1980, 1986). However, Army practices such as requiring a physician notification for absences may contribute to this differential.

Nearly one in four soldiers uses counseling and mental health services over a six-month period, with users making an average of one visit per month. The service use rate among those seeking mental health care (seven every six months) is more than twice the rate (three every six months) observed in a study of ambulatory mental health care among more than 20,000 members of Columbia Medical Plaza, a prepaid group medical practice HMO (Goldberg et al., 1980). Here again, the Army practice of command referrals of soldiers having problems may contribute to this differential.

Financial assistance or counseling were used by one in six soldiers over a six-month period. There are no available comparisons with a civilian population.

Finally, the three MWR services examined exhibit similar use patterns. One in two soldiers visits a club, gym, or library at least once each month over a six-month period. Those who use these services are generally frequent users: about once a week for the gym, once every two weeks for a club, and 1.5 times monthly for the library.

MAJOR FACTORS ASSOCIATED WITH SOLDIERS' SERVICE USE

We now turn to a discussion of the key factors that our multivariate analyses found associated with soldiers' use of each of the seven services examined. The factors are grouped by categories in the following order: (1) individual soldier characteristics including soldier emotional well-being, (2) family structure, and (3) Army and environment practices. Two sets of variables—soldiers' perceptions of the Army environment and spouse characteristics—were not included in our analysis: the first because perceptions in general

Table 5.1

PROPORTION AND MEAN NUMBER OF SOLDIERS' USE OF SELECTED SERVICES
(In a six-month period)

Service[a]	Percent Using Service	Mean Number of Times Used per Soldier	Mean Number of Times Used per User
Financial assistance	16.3	0.5	2.9
		0.1	*0.6*
Medical care	80.8	3.9	4.9
		0.2	*0.2*
Mental health care	7.6	0.5	6.9
		0.1	*1.2*
Counseling	14.9	0.6	4.3
		0.1	*0.6*
Club	47.9	7.5	15.0
		0.4	*0.8*
Gym	59.3	17.6	27.9
		0.8	*1.0*
Library	54.0	5.2	9.2
		0.4	*0.4*

NOTE: Numbers in italics note the margin of error with 95 percent confidence for the measure immediately above.

[a]Financial assistance services include financial counseling or assistance from Army Community Services, Army chaplain, Army Emergency Relief, or Red Cross; medical-care services include care in an Army emergency room, medical doctor's office or clinic, or hospitalizations; mental-health-care services provided by an Army social worker, psychologist, or psychiatrist; counseling services provided outside the formal medical-care setting by chaplains, Army Drug and Counseling Centers, Family Life Center, Army Community Services, and the Red Cross; gym services are indoor athletic facilities or activities.

were not associated with service use after controlling for general well-being and the second because we did not expect spouses to have a direct effect on soldiers' use of service.

We used two techniques to identify the factors associated with service use: a logistic regression technique to predict whether or not a soldier used a specified service in the prior six months and a negative binomial model for rate of use among soldiers. The reader is referred to App. F for details on these analytic techniques and to App. I for the complete results of the multivariate regression models. To ease interpretation, the tables that follow show the anticipated effects on the odds of service use and intensity of use for each of the factors found significant at the 5 percent level or higher.

The reader is reminded that throughout the remainder of this section, as in previous sections, the significance and magnitude of the relationship to service use of each factor are those obtained while holding every other factor constant, in other words, controlling for the "effect" of all other variables considered in the analysis.

In the tables and discussion that follow, we show the odds that a soldier with specific characteristics will use a service. Odds can be transformed back into probabilities as follows:

if the probability of service use on average for a soldier was originally estimated as 0.20, then the odds of service use are one to four (0.2/(1 - 0.2) or 0.25). For example, if the soldier is identified as being junior enlisted, then his odds of using financial services compared to senior enlisted soldiers increase by a factor of 1.44 (Table 5.2), so his new odds of service use would be 0.36. By simple algebra, we see that the estimated probability of use has thus increased from 0.20 to 0.26.

Individual Characteristics

The demand for many different types of services is often affected by whether a person is male or female, young or old. We next discuss the associations between use of services and soldier personal characteristics such as rank, sex, race, age, education, and general emotional well-being (see Tables 5.2 and 5.3).

Rank plays a significant role in the odds and frequency of service use even after adjusting for other personal and Army work environment and practices (Tables 5.2 and 5.3). In general, officers are less likely to use financial assistance and mental-health-care services and more likely to use clubs than are senior enlisted personnel. Officers are twice as likely to use club services as are senior enlisted personnel. Officers rely to a greater degree on clubs for recreation than senior enlisted personnel perhaps because of their preference for regularly scheduled events or as an extension of their regular duties in communicating with other personnel. Officers are half as likely to use mental-health-care and counseling services than are senior enlisted personnel, controlling for level of need as represented by general emotional well-being.

Junior enlisted personnel are much more likely to use a wide range of services including financial assistance, medical services, mental health care, and counseling than are senior enlisted personnel. Financial and personal counseling services are often recommended and

Table 5.2

PREDICTIONS OF ODDS OF SERVICE USE OVER A SIX-MONTH PERIOD BY INDIVIDUAL CHARACTERISTICS

	Odds of Service Use						
Individual Characteristic	Financial Assistance	Medical Care	Mental Health	Counseling	Club	Gym	Library
Jr. enlisted	1.44	1.23	1.48	1.42			
Jr. officer	0.48		0.39		1.72		
Sr. officer	0.44		0.51		2.11		
Male		0.52	0.63			1.47	
Age	0.46					0.33	
Black	1.37	0.81			2.09	1.76	
Education						2.20	2.81
Well-being	0.55	0.70	0.14	0.25		1.32	

NOTE: Comparisons of service use by rank are made relative to senior enlisted personnel, with all other factors held constant. Male service use is compared to female service use, with all other factors held constant. Service rates are evaluated at the mean age and education for all soldiers. Comparisons of service use for black personnel are made relative to nonblack personnel, all other factors held constant. Blank entries indicate that the coefficient is not significant.

Table 5.3

PREDICTIONS OF RATE OF SERVICE USE OVER A SIX-MONTH PERIOD BY INDIVIDUAL CHARACTERISTICS

	Intensity of Service Use						
	Financial Assistance	Medical Care	Mental Health	Counseling	Club	Gym	Library
Jr. enlisted	1.59	1.11	2.20	1.44			
Jr. officer			0.40		2.00		0.69
Sr. officer			0.43	0.43	2.12		0.73
Male		0.66	0.41			1.35	
Age		1.38	4.12	2.72	1.47	0.46	
Black	1.43				2.43	1.52	
Education	0.39		0.50	0.85		1.83	2.51
Well-being	0.44	0.66	0.05	0.24		1.32	

NOTE: Comparisons of service use by rank are made relative to senior enlisted personnel, with all other factors held constant. Male service use is compared to female service use, with all other factors held constant. Service rates are evaluated at the mean age and education for all soldiers. Comparisons of service use for black personnel are made relative to nonblack personnel, all other factors held constant. Blank entries indicate that the coefficient is not significant.

at times required of junior enlisted personnel by their superiors. Some junior personnel may require assistance in juggling finances for their young families or with adjusting to life in the military.

Junior enlisted personnel are more intense users of financial assistance, health-care, and counseling programs than are senior enlisted personnel (Table 5.3). For example, junior enlisted personnel have rates of mental-health-care use that are 2.2 times higher than those of senior enlisted personnel. Their rates of counseling service are about 44 percent higher than those of senior enlisted personnel. No differences, however, are observed for use of MWR programs.

Male personnel are less likely to use medical and mental health services and are more likely to use gym facilities than are females. Male soldiers are almost 50 percent and 40 percent less likely to use medical and mental health services, respectively, than female soldiers.

This difference in service use for medical, mental, and gymnasium services is also reflected in the intensity of service use. Male soldiers make about 30 percent fewer medical-care visits and 60 percent fewer mental-health-care visits than do female soldiers in a six-month period. In contrast, male soldiers use the gymnasium services 35 percent more than female soldiers. On average, males soldiers use gymnasium facilities about 28.5 visits per six-month period or about 1.2 visits per week.

These gender differences in service use patterns for the likelihood and intensity of medical- and mental-health-care use are consistent with civilian patterns (NCHS, 1987). These patterns, however, may be higher than general population levels because of Army personnel practices that require regular reassessments of fitness for duty.

After controlling for rank, **older** soldiers are less likely to use financial assistance and gymnasium services than are younger soldiers (Table 5.2). For example, the probability of using financial assistance for a 19-year-old soldier is 13.6 percent, whereas for a 30-year-old

soldier the probability is 10.6 percent. Similarly, age reduces the likelihood of using gymnasium services. As expected, older soldiers are more intensive users of mental health and counseling services (Table 5.3). Age also increases the intensity of medical-care use.

Racial differences, all other things equal, are apparent in the odds of using medical, MWR, and financial assistance services. Black soldiers are about 19 percent less likely to use medical services than are nonblack personnel. No differences were observed in either the odds of use or rate of use of mental health and counseling services. Civilian studies, however, suggest blacks have an 18 percent lower probability of outpatient mental-health-care use than do whites (Scheffler and Miller, 1989; Sue, 1977; Wu and Windle, 1989). Equal access to mental health services in the military appears to eliminate racial disparities in use of mental health care.

Black soldiers are about twice as likely to use the services of clubs and gymnasiums than are nonblack soldiers. Similarly, black soldiers are about 40 percent more likely to use financial assistance services than are nonblack soldiers. Black soldiers use the gym and financial counseling at about 1.5 times and clubs at 2.5 times higher rates than do nonblack soldiers.

More schooling is associated with a lower rate of use of financial assistance, mental health, and counseling services but does not affect the odds of service use other than MWR services. Everything else equal, the more highly educated soldiers use library services at a higher rate. In addition, the more highly educated use fewer financial, mental health, and counseling services than do less educated personnel.

Finally, soldier **emotional well-being** is significantly associated with use of all services we examined, except clubs and library services. As expected, the higher the level of emotional well-being, the lower the probability of counseling and health-care service use and the higher the probability of gymnasium use. For example, the typical soldier has about a 5.2 percent chance of using mental-health-care services in a six-month period. If this soldier experiences a 10 percent rise in his level of emotional well-being, then the probability of using mental health services would be reduced to about 4.3 percent. Similar reductions would also be seen for use of financial counseling, medical services, and counseling services. For instance, the probability of using financial assistance for the soldier with average emotional well-being is 10.9 percent, whereas a 10 percent rise in general well-being reduces the probability of use to 10.2 percent.

Family Structure

In our analysis of service use, we considered five different groups, differentiated by marital status and accompaniment of spouse and/or children (Table 5.4). Four out of five married soldiers we surveyed were accompanied. Accompanying family can often provide support and a variety of services, including simple medical care, so it is important to understand the personal context within which an individual decides to seek services. The major distinction between this specification and the specifications of family structure used in the analysis of well-being and readiness (Sec. III and Sec. IV) is the explicit recognition of the soldier who is separated from his/her dependents, labeled "Alone.ex" These responsibilities elsewhere may be associated with problems of service use that differ from those of other soldiers with accompanying family and from the single soldier.

The association between number of dependents and being married to another soldier on service use was estimated independently of family structure and accompaniment. Members

Table 5.4

FAMILY STRUCTURE AND ACCOMPANIMENT

Category	Definition
Single	Single (or divorced) military member with no dependents
Alone	Single, married, divorced, or widowed with dependents not accompanying
Single parent	Single, divorced, married, or widowed with accompanying child(ren) but no spouse
Spouse accompanying	Married soldier with a spouse accompanying
Two parent	Married soldier with accompanying spouse and child(ren)

of dual soldier families can be found among those living alone, with accompanying spouses, and with accompanying families.

Odds of Service Use. Family structure, adjusting for other personal and military characteristics, is associated with service use for a variety of services, including financial assistance, counseling, and recreational programs (Table 5.5). Personnel accompanied only by a spouse have odds of use that are 61 percent higher than those of a single soldier. Single parents and soldiers alone are not more likely to use financial services than are single soldiers despite their additional responsibilities. However, they are more likely to use counseling services. Single parents are over two times more likely and soldiers alone are 50 percent more likely to use counseling services than are single soldiers. Accompanying dependents—both spouses and children—reduce the odds that personnel use clubs and the gymnasium.

The use of services and programs is unaffected by dual Army careers net of other factors such as rank, family structure, and Army environment and practices.

Rate of Service Use. Family structure is moderately associated with the intensity of service use (Table 5.6). Use of counseling and clubs is most sensitive to family structure. The presence of a spouse and family reduces the rate of counseling services by 39 percent and the use of clubs by 59 percent. In fact, soldiers who are accompanied on their tours are less likely to use clubs than are single soldiers. But accompanying spouses and families increase the medical-care services use rate of the soldier by about 22 percent.

Table 5.5

PREDICTIONS OF ODDS OF SERVICE USE OVER A SIX-MONTH PERIOD BY FAMILY STRUCTURE

	Service						
Family Structure	Financial Assistance	Medical Care	Mental Health	Counseling	Club	Gym	Library
Alone				1.50			
Spouse accompanying	1.61					0.73	
Single parent				2.39			
Two parent					0.70	0.67	
No. of dependents	60.04						

NOTE: Comparisons of service use are made relative to the single soldier, all other factors held constant. Odds are calculated at the mean number of total dependents for a soldier. Blank entries indicate that the coefficient is not significant.

Table 5.6

PREDICTION OF THE RATE OF SERVICE USE OVER A SIX-MONTH PERIOD BY FAMILY STRUCTURE

Family Structure	Service						
	Financial Assistance	Medical Care	Mental Health	Counseling	Club	Gym	Library
Alone							
Spouse accompanying					0.59		
Single parent					0.56		
Two parent		1.22		0.61	0.41		
No. of dependents				1.30			

NOTE: Comparisons of service use are made relative to the single soldier, all other factors held constant. Rates are calculated at the mean number of total dependents for a soldier. Blank entries indicate that the coefficient is not significant.

Number of Dependents. Additional dependents increase the odds of using financial assistance. For example, the soldier with two dependents has a probability of about 10 percent of using financial assistance, whereas a soldier with three dependents has about a 12 percent chance of using services. More dependents also increase the number of counseling visits for the soldier. Although additional dependents increase the rate of use of counseling services, they do not affect the probability of use. This relationship between the number of dependents and the intensity of counseling services may reflect clinical practice patterns that include family members in the treatment or counseling.

Army Environment and Practices

We next examine the relationship between use of support services and Army environment and practices. The Army practices that we examined include continental assignment (CONUS), frequency of separations, frequency of PCS moves, assignment to a combat unit, assignment to a rural base, hours on duty, living on base, and installation size (see Tables 5.7 and 5.8).

Personnel who are **stationed in the United States** are less likely to use MWR services than are those stationed overseas but are more likely to use medical-care services. Soldiers in the United States are about 51 percent less likely to use clubs and 54 percent less likely to use library services than are soldiers stationed overseas. These differences may reflect the availability of a wider range of recreational alternatives in the United States. However, soldiers in the United States are about 38 percent more likely to use medical-care services than are soldiers stationed overseas. This may reflect the fact that soldiers with medical conditions are not sent abroad. Alternatively, or in addition, this may reflect differences in the level of sophistication or comprehensiveness of medical facilities available in the United States compared to those abroad.

The rate of medical service use is 19 percent higher and formal mental health services are 73 percent higher for personnel in the United States than for personnel stationed abroad. But the rate of use of counseling services is greater for personnel stationed abroad by about 25 percent.

Table 5.7

PREDICTIONS OF SERVICE USE OVER A SIX-MONTH PERIOD BY ARMY ENVIRONMENT AND PRACTICES

	Service						
	Financial Assistance	Medical Care	Mental Health	Counseling	Club	Gym	Library
CONUS		1.38			0.49		0.46
Separations	1.14			1.12			
PCS moves						1.15	
Combat unit	1.33	0.82			1.15		
Rural base							1.34
Hours of work			0.10				0.24
Base size						0.86	0.86

Table 5.8

PREDICTIONS OF THE RATE OF SERVICE USE OVER A SIX-MONTH PERIOD BY ARMY ENVIRONMENT AND PRACTICES

	Service						
	Financial Assistance	Medical Care	Mental Health	Counseling	Club	Gym	Library
CONUS		1.19	1.73	0.75	0.43		0.51
Separations	1.30			1.15			
PCS moves							1.20
Combat unit			0.60				
Rural base		1.15					1.47
Hours of work					15.24		
Base size		0.94			0.87	0.84	

Personnel stationed overseas also use more intensely MWR services such as clubs and library services. Soldiers in the United States use clubs and library services at about half the rate of soldiers overseas. These programs are more likely to offer familiar services throughout the world.

Frequency of soldier **separation** from their dependents is associated with use of financial assistance and counseling services. Both the odds and the rate of use increase with increasing numbers of separations. For example, an additional separation increases the odds of using counseling services by about 12 percent and increases the rate of use by 15 percent. Use of other services is not affected by the number of family separations.

The frequency of **PCS moves** is associated with the use of gymnasium and library services. Increased numbers of rotations per year are associated with a greater probability of using the gymnasium services, but they do not affect intensity of gymnasium use. The opposite relationship holds for library services. The probability of library use is not related to the frequency of PCS moves but the rate of use increases about 20 percent with each move.

Unit **mission** is associated with the use of numerous services. In general, personnel assigned to combat roles are less likely to use medical services and less intensively use mental-health-care services. These personnel, however, are more likely to use MWR programs such as clubs than are personnel in support and training units.

Even after controlling for rank, age, gender, and other characteristics, the odds of using financial assistance programs are 33 percent higher for combat mission personnel than for those assigned to support and training units.

Assignment to a base located in a **rural setting** significantly increases the use of medical and library services. Medical visit rates are about 15 percent higher among those assigned to rural posts. Library visit rates are almost 50 percent higher for personnel in rural posts compared to those in suburban and urban locations. This difference may reflect the limited opportunities or alternatives for recreation either on these bases or in the outlying communities or both.

Longer **working** hours decrease the odds that personnel will use mental-health-care services and library services. But with longer working hours, personnel appear to structure their recreation time by using clubs much more intensely. In addition, those who work longer hours use clubs at a higher rate.

Finally, installation **size** plays a role in the use of services. Soldiers are less likely to use library and gym programs in larger installations than in smaller installations, perhaps reflecting the wider array of recreational choices available in and around large bases. Military members also less intensely use medical services in larger bases than in smaller bases.

SUMMARY

Use of Army-sponsored services varies considerably depending upon the soldier's individual, family, and environmental characteristics. Some characteristics are related to the odds of using a specific service (Table 5.9), whereas others are related to the intensity of service use (Table 5.10).

In general, individual characteristics such as age, gender, race, rank, and well-being are associated with differences in service use. For example, even after controlling for rank, older soldiers are less likely to use all services we examined, except financial assistance and library services. Similarly, soldiers with lower emotional well-being are more likely to use services for financial assistance, medical, mental health, and counseling and use them more frequently. They are, however, less likely to use the gymnasium.

Rank plays a significant role in the types and amount of services used. In general, junior enlisted personnel use more services of all types than do other personnel. Officers, both junior and senior, are less likely to use financial and mental health services and more likely to use clubs than are senior enlisted personnel.

Female soldiers, all other things equal, tend to be higher users of all types of support services, except MWR programs. This pattern of gender differences in the demand and intensity of use of medical, mental health, and various counseling and assistance programs is consistent with those observed in the civilian economy, although both men and women in the Army use such services at higher levels than civilians do (NCHS, 1985). These higher rates of medical service use may reflect Army personnel policies. For instance, some personnel are required to undergo annual physical examinations certifying fitness for duty. Those who are overweight or for another reason are not considered fit are sent to clinics that screen them regularly until they meet duty standards. Similarly, junior enlisted personnel must have an

Table 5.9

SUMMARY OF CHARACTERISTICS ASSOCIATED WITH THE ODDS OF SERVICE USE IN THE PAST SIX MONTHS

Characteristic	Service						
	Financial Assistance	Medical Care	Mental Health	Counseling	Club	Gym	Library
Individual							
Age	–					–	
Male		–	–			+	
Black	+	–			+	+	
Education						+	+
Junior enlisted	+	+	+	+			
Junior officer	–		–		+		
Senior officer	–		–		+		
Well-being	–	–	–	–		+	
Family structure							
Alone				+			
Spouse accompanying	+					–	
Single parent				+			
Two parent					–	–	
No. of dependents dual career	+						
Army environment and practices							
CONUS		+			–		–
Separations	+			+			
PCS moves						+	
Combat	+	–			+		
Rural							+
Hours of work			–				–
Installation size						–	–

NOTE: Blank entries indicate that the coefficient is not significant.

excuse from a medical provider indicating they were ill when they missed work. Because every soldier has equal access to medical care, they are not prevented either by financial or other barriers to care common in the civilian population. Rates of use of mental-health-care and counseling service similarly show the effects of Army personnel policies. Use of these and other services often is initiated through referral from supervisors. For instance, 23 percent of soldiers who used Army Community Services or Army Emergency Relief for financial counseling were directed by their supervisors.

Various other personal characteristics affect the demand for sponsored services but of those tested none is more important than emotional well-being. General emotional well-being is associated with the demand for nearly all services we considered and the effects are larger than those observed for all other characteristics. The demand for medical, mental health, and assistance programs declines and use of MWR services increases with greater emotional well-being. The intensity of service use is similarly affected by emotional well-being.

Table 5.10

SUMMARY OF CHARACTERISTICS ASSOCIATED WITH THE RATE OF SERVICE USE IN THE PAST SIX MONTHS

Characteristic	Service						
	Financial Assistance	Medical Care	Mental Health	Counseling	Club	Gym	Library
Individual							
Age		+	+	+	+	–	
Male		–	–			+	
Black	+				+	+	
Education	–		–	–		+	+
Junior enlisted	+	+	+	+			
Junior officer			–		+		–
Senior officer			–	–	+		–
Well-being	–	–	–	–		+	
Family structure							
Alone							
Spouse accompanying					–		
Single parent					–		
Two parent		+		–	–		
No. of dependents dual career				+			
Army environment and practices							
CONUS		+	+	–	–		–
Separations	+			+			
PCS moves							+
Combat			–				
Rural		+					+
Hours of work					+		
Installation size		–			–	–	

NOTE: Blank entries indicate that the coefficient is not significant.

In general, accompanying family members contribute to an increased use of counseling services but a decrease in MWR services by soldiers. For example, single parents and those soldiers living apart from their spouses and families are more likely to use counseling services than are single soldiers. All soldiers with children accompanying them are less likely to demand MWR services such as clubs and gyms.

Army environment and practices also affect the demand for services. Perhaps the most significant of these is related to location of assignment and mission. Military members stationed in the United States more intensively use medical and mental health services and less intensively use recreation services than do those stationed abroad. This may reflect the availability of some types of medical services at various installations abroad and the larger set of alternatives available for entertainment in the United States.

VI. DISCUSSION AND POLICY IMPLICATIONS

Family structure and Army environment and practices are associated with Army soldiers' personal readiness, well-being, and service utilization in varying and complex ways. In this section we use the understanding we have gained on the nature and extent of these relationships to (1) address five questions that are of concern to the Army and (2) consider alternative policies that might enhance soldier individual readiness and well-being, or affect service use.

ARMY CONCERNS RELATED TO FAMILIES

In the Introduction we noted that in the past few years, including the period when this study was conducted, the Army leadership and family service community has focused on several recurring concerns:

- To what extent do family responsibilities and problems interfere with or support personal readiness?
- How and to what extent do the performance and treatment of single soldiers differ from those of married soldiers?
- How and to what extent does single parent status affect personal readiness, well-being, and service use?
- How and to what extent does dual family status affect personal readiness, well-being, and service use?
- How and to what extent do female soldiers differ from male soldiers?

Below we summarize what we have learned in this study about each of these questions.

Effects of Family Responsibilities on Individual Readiness

There are concerns in the Army that family related-problems (e.g., finances, day-care needs) are negatively affecting the availability of soldiers for training or deployment. More than half of today's Army is married, and over the past decade more spouses have joined the work force. Also, more family members accompany Army personnel stationed abroad (Morrison et al., 1989).

We addressed this question by measuring the extent to which soldiers lost duty time, were late to or missed no-notice alerts, or left a deployment early for family-related or personal reasons. We also measured job-related difficulties, commitment to the Army, career intentions, and confidence in family self-sufficiency (all as self-reported by soldiers).

For the Army as a whole, there appears to be no major problem with individual readiness. Fewer than one in 20 soldiers who have had a no-notice alert or planned deployment in the past year have been late to or missed an alert, or have left any deployment early for personal or family reasons. Although one in five has taken as much as 16 hours off duty time in the past month for personal or family reasons, this represents 7 percent of an average 57.5-hour work week. The average soldier does not report a strong commitment to the Army, that is, is uncertain as to whether the Army is the best of all places to work or whether he/she

shares Army values, as indicated by a mean of 51 on a commitment scale ranging from 0 (no commitment) to 100 (high commitment). Nonetheless, the average soldier expects to serve for about 14 years in the armed forces.[1] Army families tend to be self-sufficient, with soldiers being "very sure" their spouses can take full responsibility for family matters in their absence, and about 6 percent of all soldiers who had a planned deployment in the past year report fair or poor child-care arrangements during deployment.

However, in an institution of the size of the Army (780,000 soldiers at full strength), even small percentages can be significant. For instance, although only 6 percent of all soldiers who had a planned deployment reported inadequate child-care arrangements, this would translate to about 50,000 soldiers (or 50 battalions or two divisions) if all soldiers were deployed at the same time.

The association between family status and individual readiness varies across readiness domains (see Table 6.1). Other things being equal, married soldiers report slightly lower (5 percent difference on the scale) levels of job-related problems, are more committed to the Army (5 percent difference on the scale), and expect to serve in the Army an average of 1.3 years longer than singles. Married soldiers, however, take more time off duty for personal and family reasons: about 5 percent more marrieds than singles were predicted to have taken as much as two days off duty time for personal or family reasons in the past month.

Having children (either as a single or married parent) is unrelated to job-related problems, but soldiers with children (regardless of whether the children accompany them) are more committed to the Army and expect to serve longer. For instance, married soldiers with accompanying children plan an average 2.8 years more of active duty than married soldiers without children. Having accompanying children, however, also is related to taking more time off duty, being late to or missing an alert, or leaving a deployment early. The Army

Table 6.1

PREDICTIONS OF READINESS BY MARITAL AND FAMILY STATUS

Soldiers	Job-Related Problems	Percent Absent/Late for No-Notice Alert Deployment	Percent with 2+ Days Lost from Duty in Past Month	Attitudes of Commitment to the Army	Expected Years of Service
Single (total)	30.4	2.9	14.2	50.9	13.6
Without children	ns	2.3	13.1	46.0	9.7
With children, not accompanying	ns	5.4	15.7	47.7	10.8
With children, accompanying	ns	12.6	19.7	49.3	11.2
Married (total)	29.0	3.7	19.4	53.4	14.9
Without children	ns	1.9	16.9	ns	15.1
With children, not accompanying	ns	2.0	17.7	ns	16.3
With children, accompanying	ns	4.4	21.3	ns	17.9

NOTE: Predictions for total single and total married assume average characteristics of entire military member sample based on other factors included in multivariate model. Predictions for subgroups with and without children among singles assume average characteristics of single military members based on other factors. Similarly, predictions for subgroups with and without children among marrieds assume average characteristics of married military members based on other factors. ns means not statistically significant.

[1]Expected years of service are, of course, highly dependent on the stage in one's military career. About 50 percent of junior enlisted (E3 and E4) do not expect to stay more than four years in the military, whereas more than two out of three senior enlisted (E5 and above) expect to stay until they are eligible for retirement (20 years).

should consider the magnitude of this effect in deciding whether this is a problem that ought to be addressed. Table 6.1 shows the predicted percentage of soldiers being absent from an alert or deployment in the past year or taking two or more days off duty in the past month for family or personal reasons.

More important, our survey indicated that the most frequent reason for being late or missing a no-notice alert was not being contacted, and the most frequent reason for leaving a deployment early was military duty requirements. Overall, a soldier was two-and-a-half times more likely to be absent from an alert or from a deployment because of not being contacted or Army requirements than for personal or family-related reasons.

Single and Married Soldiers

Because of the increased attention given to family members by the Army over the past five years, there has been a related concern that single soldiers may be treated differently and not get the support they deserve, in part because they have no "institutional" advocates within the Army. To inform this question, we consider below the extent to which the needs and patterns of service use differ between single and married soldiers. We also consider the extent to which work demands placed on single soldiers may differ from those placed on married soldiers.

Our measures of individual well-being, emotional well-being, and prevalence of soldiers screening positive for depression are measures of the need for counseling and mental health services. Overall, and other things being equal, we found no difference between single and married soldiers in mental health scores, but over the past year singles were more likely to screen positive for depression (43 versus 38 percent). Singles have slightly lower needs for financial assistance, but are about twice as likely to report having alcohol or drug abuse problems than married soldiers (5 versus 13 percent).

The pattern of use of financial assistance is consistent with the pattern of need for this service: just as they have lower needs, singles have a lower propensity for using financial assistance. Single soldiers without children are one-third less likely to use financial counseling and assistance services than married soldiers without children (see Table 6.2). However, even though singles have seemingly a higher need for counseling and mental health services, they are less likely to use these services than other military members, except married

Table 6.2

PREDICTIONS OF SERVICE USE BY SINGLE AND MARRIED SOLDIERS

Soldiers	Financial Assistance	Medical Care	Mental Health	Counseling	MWR		
					Gym	Club	Library
Single, without children or not accompanied by children	9.5	80.1	5.3	12.8	70.4	52.7	55.8
Singles, with accompanying children	11.9	85.1	6.2	25.9	63.4	44.2	61.1
Married, but not accompanied	13.1	80.8	5.8	18.0	72.3	54.5	53.1
Married, accompanied by spouse and no children	14.4	79.8	5.8	13.7	63.4	47.5	56.4
Married, with accompanying children	11.8	82.0	4.7	11.7	61.5	43.7	59.0

NOTE: Prediction for each subgroup assumes average characteristics of these subgroups based on other factors included in the multivariate model.

military members accompanied by their families. About 5 percent and 13 percent of singles use mental health and counseling services, respectively. But if they do use them, they are likely to use them more intensively. For instance, among users of counseling services, being single increases the rate of use by about 30 percent.

There are no significant differences between single and married soldiers in the probability or the intensity of use of medical services. With respect to MWR programs, singles are about 10 percent more likely to use gyms and clubs and do so more frequently than married soldiers, regardless of whether or not the latter have children. There are no significant differences between the two groups in use of libraries.

Finally, there appear to be no significant differences in work demands. For instance, single and married soldiers work equally an average of 10 hours a day and experience a change of station on the average of every two-and-a-half years.

In summary, there are no major differences in work demand, well-being, and service use between single and married soldiers that cannot be explained by other factors. The one exception to this pattern that may require attention—possibly through outreach—concerns a higher incidence of depression among singles, a pattern that is accompanied by a lower use of counseling and mental health services. The only other significant difference is that more than 80 percent of single enlisted reside on-base in barracks. These soldiers have restricted privileges and are subject to various rules and unannounced inspections. Married soldiers living on-base (about 50 percent) are not subject to these restrictions.

Single Parenthood in the Army

There are an estimated 13,000 singles with accompanying children in the Army, about 54 percent of whom are males.[2] Although the children of single parents have priority access to Army day-care services, there are concerns that the responsibilities of single parenthood negatively affect soldiers' individual readiness.

The effects of single parenthood vary across readiness domains (see Table 6.1). Compared to married parents with accompanying children, and all else being equal, single parents are equally committed to the Army and have similar levels of job-related problems as do singles without children, but expect to serve in the Army for a shorter period of time.

Soldiers who are single parents are also more likely than married parents to be late to or miss a no-notice alert, leave a deployment early, or otherwise take time off from duty for personal or family-related reasons. Single parents, for example, are over five times more likely than other singles, and almost three times more likely than married parents, to have had an absence from a no-notice alert or deployment in the past year due to personal or family reasons, other things being equal. Although soldiers who are single custodial parents are 50 percent more likely to lose two or more days of duty time per month than singles without children, they are as likely as married soldiers with accompanying children to lose such duty time.

Overall, soldiers who are single parents with accompanying children have both a greater need for support services and use most Army support services more than do soldiers who are married with children. With respect to needs, single parents have greater needs for financial assistance. Although single parenthood is not related to general emotional well-

[2]The number of soldiers who are single parents with daily custodial responsibility for one or more children is lower than the number of soldiers (about 37,000 in 1990) not currently married reporting one or more dependent children.

being or incidence of screening positive for depression, male single parents are 1.2 times more likely to have screened positive for depression than female single parents (60 versus 50 percent).

With regard to use of Army services, single parents with accompanying children were from 4 percent to more than 100 percent more likely than married parents to use support and therapeutic services, including medical, mental health, and counseling services (see Table 6.2). They exhibit generally the same pattern of MWR service use as married soldiers with children.

In summary, we found no evidence that single parenthood had a negative effect on readiness with the exception of lower availability for duty. Generally, soldiers who are single parents make a higher use of support services and lower use of MWR services than married couple parents. Compared to soldiers with children in intact families, soldiers who are single parents make a slightly greater use of some support services, including medical, mental health, and counseling services.[3]

Soldiers Married to Other Soldiers

There are in excess of 40,000 soldiers in the Army who are married to one another, about 14,000 of whom have children who are accompanying them. Because both parents may be called on duty at the same time and are both subject to the same Army requirements, there are concerns (similar to those encountered for single parents) that dual family status negatively affects individual readiness.

Soldiers who are married to other soldiers scored similarly to soldiers married to civilians on our indicators of readiness with three exceptions (see Table 6.3). They report a 10 percent higher level of job-related problems and are 2.5 times more likely than other married soldiers to be absent from an alert or deployment. Finally, soldiers married to other soldiers are both more likely to need child care during deployment and were more than twice as likely as soldiers married to civilians to rate these services fair or poor. Whereas soldiers married to civilians generally have more confidence in their spouses to handle family matters when they have children, soldiers in dual families have less confidence in their spouses when they have children.

Among couples, whether a soldier is married to another soldier or to a civilian is not associated with his or her emotional well-being or his or her screening positive for depression.

Similarly, being married to another soldier plays little to no role in the use of most services.

Women in the Army

Over the years, the proportion of women in the Army has increased and today women constitute about 10 percent of the active force. An increased proportion of women has led to increases in the number of dual family members and in the proportion of single parents who are females (Morrison et al., 1989). Below, we examine how and to what extent female soldiers are affecting the Army in other ways, if at all.

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[3]The reader is reminded that what is reported here is the pattern of service use by soldiers and excludes use by older family members.

Table 6.3

PREDICTIONS OF READINESS FOR SOLDIERS MARRIED TO OTHER SOLDIERS AND TO CIVILIANS

Soldier	Job-Related Problems	Percent Absent for No-Notice Alert or Deployment	Percent in Need Rating Child Care Fair or Poor
Married to other soldier	30.7	5.6	49.0
Married to civilian	27.5	2.3	23.3

NOTE: Predictions for subgroups of soldier or civilian spouses among marrieds assume average characteristics on all other factors included in multivariate models based on entire married sample.

Other things being equal, female soldiers report about 5 percent lower scores on job-related problems than men (see Table 6.4). But they are 25 percent more likely to take time off for duty and 70 percent more likely to be absent from alerts or to leave a deployment early for personal or family-related reasons. The absolute magnitude of these effects is not large, however. Among females called on a no-notice alert or deployment over a period of a year, about 3.9 percent would be late, missing, or leave early compared to 2.3 percent of male soldiers. Male and female soldiers are equally likely to need child care during a deployment, but females are 37 percent more likely to rate the care received as fair or poor.

Although females are similarly committed to the Army relative to males, they intend to spend on the average half a year less in the force than male soldiers.

Consistent with civilian populations, female soldiers score lower (by 5 percent) on emotional well-being and are 1.2 times more likely to screen positive for depression. Female soldiers have an 11 to 55 percent higher probability of using support and therapeutic Army services, including financial assistance, medical, and mental health services, and they use those services at a rate that exceeds that of male soldiers by 8 to 60 percent. There are generally no significant differences in the use of clubs and libraries, but female soldiers are 13 percent less likely to use Army gyms than male soldiers.

In summary, there is evidence that female soldiers experience slightly fewer job difficulties than male soldiers, all other things being equal. Female soldiers also affect the Army in three other ways: they intend to serve on the average for a shorter period of time, have a somewhat lower availability for duty, and use support and therapeutic services significantly more than male soldiers.

ENHANCING SOLDIER INDIVIDUAL READINESS AND WELL-BEING

The Army has several options (including potentially low-cost options) that might increase personal readiness and well-being or reduce demand for support and therapeutic Army services. Although there is considerable overlap in the factors that are associated with these three "outcome" domains, there are differences both in magnitude of effects and in specific factors influencing each one of them. Hence, trade-offs must be considered among

Table 6.4

PREDICTIONS OF WELL-BEING, READINESS, AND SERVICE USE BY GENDER

	Well-Being			Readiness					
Gender	Emotional Well-Being	Percent Screening Positive for Depression	Satisfaction with Spouse[a]	Job-Related Problems	Percent Absent for No-Notice Alert Deployment	Percent with 2+ Lost from Duty	Commitment to Army	Expected Years of Service	Percent Rating Child Care Fair or Poor at Last Deployment
Female	64.3	46.3	74.4	28.4	3.9	21.1	ns	14.0	38.4
Male	68.0	39.6	77.6	29.7	2.3	16.8	ns	14.6	28.1

	Percent Soldiers Using Service Over Six-Month Period						
					MWR		
Gender	Financial Assistance	Medical Care	Mental Health	Counseling	Gym	Club	Library
Female	14.2	88.2	7.6	15.2	57.6	45.2	58.3
Male	11.5	79.7	4.9	13.0	66.6	48.2	57.0

NOTE: Predictions for total females and total males assume average characteristics based on all other factors included in the multivariate model.

[a]For married only.

these three outcomes. Possible adjustments the Army might consider to enhance one or all of these outcomes can be grouped into four major policy domains:

- Changes in Army requirements and practices
- Increases in leadership support of soldiers and family members
- Selectivity in recruitment or retention
- Enhanced services and outreach

Changes in Army Requirements and Practices

We found that the following key Army-related factors are associated with higher soldier well-being and individual readiness, and use of support services:

Well-being:	Readiness:	Service use:
Shorter hours	Shorter hours	Shorter hours
Assignment to preferred location	Assignment to preferred location	Fewer separations
Fewer separations	Fewer separations	Fewer rotations
CONUS	Fewer rotations	CONUS
	CONUS	Combat mission
	Combat unit	Rural location

Elsewhere (Morrison et al., 1989), we suggested that the Army review and assess the current practices of rotation, deployment, duty station assignments, and working hours with an eye to developing innovative ways to (1) reduce and increase predictability of working hours, (2) reduce frequency of relocations, (3) reduce length and frequency of separations, and (4) increase assignment to station of preference. Our findings generally lend further support to this earlier general recommendation while indicating with greater specificity which changes in Army practices or assignments might lead to which changes in magnitude of outcomes. Table 6.5 suggests, however, that sizable changes in Army practices regarding hours worked, rotations, and separations would be necessary to significantly affect individual well-being, readiness, or service use. For instance, a decrease of 30 percent in hours worked might lead to a 6 percent decline in job-related problems. Similarly, a reduction of 4.5 months in the length of annual separations is associated with a reduction of 4 percent in job-related problems, all else being equal. Table 6.5 also shows the predicted effects of changes in Army assignments.

Regarding possible reductions of Army forces stationed abroad (particularly in Germany), our findings that location is significantly associated with soldier well-being and in turn service use are particularly relevant. For instance, the return of troops to the United States (other things remaining equal, including force size) might increase the rate of soldiers' use of medical services in CONUS by 6 percent relative to the level of demand for those troops OCONUS and would decrease the rate of use of clubs and libraries by 44 and 37 percent, respectively. We also expect that emotional well-being and marital satisfaction might be affected positively.

Regarding expansion or reduction of bases, we found no notable relationships between our measures of outcomes and (1) proximity to a large urban area and (2) whether soldiers live on or off base. The one exception is that being stationed at an installation in a rural

Table 6.5

PREDICTED EFFECTS OF CHANGES IN ARMY PRACTICES AND ASSIGNMENTS ON WELL-BEING, READINESS, AND SERVICE USE

Change in Army Practices	Well-Being		Readiness		Service Use	
30 percent reduction in hours worked	Emotional well-being: Percent screened positive for depression:	+ 2% –11%	Job-related problems:	– 6%	Mental health: Library:	+23% +6.3%
Decrease length of separation from 6 mo. to 1.5 mo. yearly			Job-related problems: Commitment to Army:	– 4% + 3%		
Decrease number of separations from 3 to 0			Time lost from duty:	–14%	Financial services:	–20%
Decrease number of PCS moves per year from 4 to 1			Absences from alert/deployment:[a]	–51%	Gym:	+ 5%
Assignment to preferred location	Emotional well-being:	+ 2%				
Location OCONUS	Emotional well-being: Marital satisfaction:	– 3% – 2%	Satisfaction with day care during deployment:	–30%	Medical: Gym: Library:	–6.0% +44% +37%
Assignment in combat unit (relative to support unit)			Confidence in spouse:	+ 2%	Financial: Medical: Gym: Club: Library:	+18% – 4% + 5% + 7% +13%
Assignment to rural area (relative to urban area)						
Assignment to small size installation (5000) (relative to installation of 19,000 soldiers)					Gym: Library:	+ 6% + 4%

[a]Single only.

setting increases use of library services by 13 percent relative to being stationed at an installation in an urban area.

Perceptions of Army Support and Policies

Like many others before us (Vernez and Zellman, 1987), we found a strong relationship between perceptions of Army leadership and practices on the one hand, and readiness and individual well-being on the other. In addition, our findings indicate that perceptions of Army support and of the necessity of Army requirements are also associated with retention for officers, and with Army commitment and job performance for all soldiers. These effects seem to be independent from the effects of actual hours worked and actual frequency of rotations. These findings lend further support to the notion that policies and programs that communicate concern about families and that provide information and justification for Army policies contribute not only to individual well-being, but also independently affect positively some domains of readiness.

Table 6.6 shows how changes in soldiers' perceptions of support of leadership and the necessity of various Army practices might affect certain indicators of well-being and readiness, suggesting two important conclusions. First, it takes a fairly large change in perceptions to induce a sizable change in the outcome of interest. For instance, a change in perception of the necessity of "all the separations from spouse because of Army duties" from "somewhat unnecessary" to "very necessary" is associated with a 16 percent reduction in lost duty time. Second, changes in perceptions have their largest effect on three specific outcome measures: screening positive for depression, job-related problems, and commitment to the Army.

With respect to support of Army leadership for soldiers and their families, our data indicate that on the average it is perceived to be good (average 46 on a scale from 0 to 100). The matter of leadership support cuts across all levels of command from unit leadership to installation leadership to Army leadership. Ratings of the perceptions of support across these three levels of leadership are highly correlated. That is, perceptions of family support provided by unit leadership tend to correspond to perceptions of family support from higher levels of leadership in the Army. However, because soldiers identify more directly with their units—squadron, company, and battalion—than with the installation or the Army at large, the burden of communication of and sensitivity to these issues falls to a greater degree on officers and noncommissioned officers (NCOs) at that level. As we have noted elsewhere (Morrison et al., 1989), addressing those perceptions should be made part of officer and NCO training.

In recent years, the Army has sought to encourage its officers to openly communicate with soldiers and family members through formal predeployment briefings and through the establishment of family support groups. Although progress reportedly has been made in this area, our 1987 survey suggests that much remains to be done for these policies to take hold. In that year less than a third of spouses, for instance, had been invited to a predeployment briefing and fewer than one in five had been invited to participate in a family support group.

Two difficulties appear to limit the effectiveness of these policies. First, many spouses and soldiers themselves (about half) chose not to participate even when invited. Second, the organization and operation of these support activities rely entirely on the initiatives of unit commanders who have many competing demands for their time and on volunteers (in the case of the family support group) who are increasingly facing conflicting demands for their time. High turnover in leadership and personnel at the unit level exacerbates these

Table 6.6

PREDICTIONS OF SELECTED OUTCOMES BY SOLDIERS' PERCEPTION OF ARMY SUPPORT AND POLICIES

Perception	Emotional Well-Being (Mean on 0–100 scale)	Depression (Percent screening positive)	Marital Satisfaction (Mean on 0–100 scale)
Support of Army leadership[a]			
25th percentile (25 on scale)	66.2[b]	51.9[c]	
75th percentile (67 on scale)	69.1	45.2	
Necessity of time on duty			
25th percentile (somewhat necessary)	67.2[b]	41.0[b]	77.2[d]
75th percentile (very necessary)	68.7	38.5	77.8
Necessity of PCS moves			
25th percentile (somewhat unnecessary)	68.4[d]		76.9[d]
75th percentile (very necessary)	69.8		77.7
Army better than civilian life			
25th percentile (civilian somewhat better)	68.6[d]	36.4[d]	
75th percentile (Army somewhat better)	69.8	32.5	
Adequacy of income			
25th percentile (somewhat adequate)	67.3[b]	41.0[b]	77.2[d]
75th percentile (adequate)	69.3	36.6	78.2

[a]Scores at 25th and 75th percentile on a 0–100 scale.
[b]Total sample.
[c]Single sample.
[d]Married sample.

	Indicators					
Demographic Characteristic	Job-Related Problems (Mean on 0–100 scale)	Lost Duty Time (Percent with > 2 days in past mo.)	Commitment to Army (Mean on 0–100 scale)	Expected Years of Service (Mean years)	Spouse Responsibility (Mean on 0–100 scale)	Inadequate Child Care During Deployment (Percent with fair to poor child care)
Support of Army leadership						
25th percentile (25 on scale)	31.1		49.2			33.1
75th percentile (67 on scale)	28.1		55.5			24.8
Necessity of time on duty						
25th percentile (somewhat unnecessary)	30.0		51.4	14.3		33.8
75th percentile (somewhat necessary)	28.4		54.7	14.6		
Necessity of PCS moves						
25th percentile (somewhat unnecessary)			50.4	14.2		
75th percentile (very necessary)			53.7	14.5		
Necessity of family separations						
25th percentile (somewhat unnecessary)		20.6[a]		16.3[a]		
75th percentile (very necessary)		17.3		17.2		
Army better than civilian life						
25th percentile (civilian somewhat better)			46.4	13.2	85.7	
75th percentile (Army somewhat better)			58.7	15.7	87.2	
Adequacy of income						
25th percentile (somewhat adequate)	29.5	17.5		14.4	86.3	
75th percentile (adequate)	29.8	16.0		14.2	87.4	

[a]Married only.

difficulties. Hence, alternatives to exclusive reliance on unit commanders and volunteers for these matters might be explored.

This study also investigated the relationship between soldiers' and spouses' perceptions of Army life relative to civilian life and personal readiness and well-being. On the average, we found that soldiers perceived Army life (combining job security, retirement benefits, other benefits, job pay, and family's overall satisfaction) to be "no different" to "somewhat better" than civilian life. Unexpectedly, the spouses of soldiers rated Army life higher (about 10 percent) than soldiers relative to civilian life. We found a significant and sizable relationship between this rating and our measures of commitment to the Army: a 25 percent change in ratings of Army life in relation to civilian life from "no difference" to "somewhat better" is associated with a 26 percent increase in commitment to Army and a 19 percent (2.5 years) increase in expected years of service.

Selectivity in Recruitment or Retention

In addition to the effects of gender and marital status, discussed in the first subsection, we examined the effects of two other individual characteristics—age and education.

Other things being equal (including rank), age has a positive effect on individual well-being (as is generally true in civilian populations), retention, job-related problems, and service use. The Army is considering lateral recruitment to overcome potential future recruitment difficulties, and this finding suggests that such an action would have no detrimental effect; it may in fact have positive effects on some outcomes of interest to the Army.

Schooling, other things being equal, was weakly and negatively related to individual well-being, and somewhat more strongly and also negatively related to expected years of service in the Army. The latter finding is consistent with previous studies indicating that education is a significant factor in Army career decisions.

Enhanced Services and Outreach

Perhaps the most striking finding of our study is the relatively low scores on emotional well-being and high prevalence of soldiers screening positive for depression. After controlling for age and gender, more soldiers screened positive for depression than the numbers found in studies of civilians. The proportion of soldiers screening positive for depression, for example, is three to four times higher than that among civilians with similar gender and age characteristics. Although not all soldiers screening positive for depression have experienced a depression of clinical magnitude, we estimate, based on research in civilian populations, that up to one out of every eight soldiers may have experienced an episode of depression severe enough to be diagnosed as a depressive disorder at some time in the past year.

These differentials in individual well-being between civilian and military populations are not unexpected. As noted earlier (Sec. III), soldiers and their families are subjected to frequent and intense stresses that individually or in combination are not found in civilian life. And as in civilian populations, we found that perceptions of good social support mitigated the effects of these stresses. We still do not know, however, whether the screener we used (and was developed and validated in civilian populations) operates similarly in military populations. The stresses in the military are expected and may produce less severe depressive symptoms. If that is the case, a smaller proportion of soldiers screening positive for depression in our study will have experienced a clinical depression disorder than will that of civilian populations. Further research ought to be undertaken to address this question.

Whatever the answer to this question, our indicators of emotional well-being and depression were associated with every aspect of soldiers' individual readiness and use of services. Overall, and other things being equal, we found that poor emotional well-being and self-reports of depression are consistently and strongly associated with higher levels of self-reported job problems, lower availability for duty for personal and family-related reasons, lower commitment to the Army, and the intent to spend fewer years in the Army. In addition, married soldiers with poorer emotional well-being and with recent periods of depression were less likely to have confidence in the self-sufficiency of their spouses in their absence during a conflict (see Table 6.7). Finally, lower scores on our emotional well-being scale indicating impaired psychological functioning also lead to higher use of Army support and therapeutic services.

The effects of individual well-being on our measures of readiness and service use are sizable and relatively greater than those of any other personal, family, or Army-related factors that were measured in this study. An increase of 50 percent in emotional well-being scores is associated with a decline of 28 percent in job-related problems, 26 percent in absenteeism from an alert or deployment for personal or family-related reasons, and an increase of 10 percent in commitment to the Army. It also is associated with 19, 53, and 40 percent decreases in use of financial, mental health, and counseling services, respectively.

Among soldiers who screened positive for depression, two out of three did not seek (or were not directed to) professional mental health help or counseling. These patterns need to be confirmed by further assessments, but if they were found to be prevalent, the Army should consider developing an enhanced outreach and detection program. Such a program could reduce the extent of depressive symptoms, with potentially high payoffs.

Beyond the question of treatment for those already within the Army, another question that remains to be addressed is the extent to which the problem encountered is due to selectivity of recruits into the Army or whether this problem is fostered by the Army environment, or both. It may be that proportionately more people with "emotional vulnerabilities" enter the military. Currently there is no screening for severe emotional problems at the time of recruitment. At the same time, we found, as noted above, that other things being equal, certain Army practices and requirements (e.g., long hours or a station abroad) are associated with lower levels of emotional well-being, while others, including being assigned to a preferred location and perceptions of support by Army leadership, are associated with higher levels of well-being.

Table 6.7

PREDICTIONS OF SELECTED OUTCOMES BY LEVELS OF EMOTIONAL WELL-BEING

Item	Readiness						
	Job-Related Problems	Percent with 2+ Days Lost from Duty Time in Past Month	Percent Absent for No-Notice Alert or Deployment	Attitudes of Commitment to Army	Percent in Expected Years of Service	Self-Sufficiency of Spouse[a]	Percent in Need Rating Child Care Fair or Poor
Emotional well-being score							
25th percentile (56)	33.4	ns	3.8	50.5	14.0	85.8	32.7
75th percentile (84)	24.0	ns	2.8	55.3	14.9	87.5	24.7
Screened positive for for depression							
Yes (40.2 percent)	30.6	19.6	ns	ns	ns	85.3	ns
No (59.8 percent)	28.9	15.8	ns	ns	ns	87.2	ns

Item	Percentage of Soldiers Using Services Over a Six-Month Period						
					MWR		
	Financial Assistance	Medical Care	Mental Health	Counseling	Gym	Club	Library
Emotional well-being score							
25th percentile (56)	13.1		7.5	16.7	64.1	46.7	ns
75th percentile (84)	10.6		3.5	10.2	66.6	49.0	ns

NOTE: ns means not statistically significant.
[a]Married only.

Appendix A

QUESTIONNAIRES FOR SURVEY OF SOLDIERS AND FOR SURVEY OF SPOUSES

Approval Authority: U.S. Army Soldier Support Center
Survey Control Number ATNC-AO-87-20-B RCS MILPC-3

ARMY FAMILY PROGRAMS AND READINESS

1987 SURVEY OF ARMY MILITARY SPOUSES

The Army wants to provide the best support programs it can for you and your family. You can help by responding to this questionnaire, which is part of a study about Army Family Programs. This information will help us improve the programs we now have and plan future ones.

The study is being conducted for the Army by the RAND Arroyo Center, a non-profit research center in Santa Monica, California. If you want to be part of the study, please fill out and return the questionnaire. The research center will hold your answers in confidence.

Before you begin the questionnaire, please read the instructions on the inside cover.

Thank you for taking part in this study.

Statement of Confidentiality

All information that would permit identification of you or your family will be regarded as strictly confidential. Such information will be used only for the purposes of the study and will not be disclosed or released for any other purpose unless you agree beforehand in writing, except as required by law.

(Office Use Only)

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THE RAND CORPORATION

Form: S 11/

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

- **Please read each question carefully before you give your answer.**
- **Answer the questions by CIRCLING the appropriate number or numbers, or by WRITING in the answer as requested.**

EXAMPLES: 1. Do you now live at the same geographic location as your spouse?

(Circle One)

Yes..... (1)
No..... 2

2. How much do you pay per week for your childcare arrangements?
(If none, write in "0.")

Write in Dollars Per Week: $ 045 .00
U.S. Dollars

- **Please answer every question, unless you are asked to SKIP questions that don't apply to you. In that case, follow the instructions NEXT to the answer you have circled.**

EXAMPLE: 3. Do you have any children under 18 who live with you now?

(Circle One)

Yes..... 1 - - -> Continue with QUESTION 4
No..... (2) - - -> GO TO NEXT PAGE - - ->

- **If you are unsure about how to answer a question, give the best answer you can and make a comment in the LEFT margin.**

SECTION 1. LIFE IN THE ARMY

First, we'd like some information and opinions about how Army life is for you, including such things as your current location, moving and family separations.

1. In what state (or country, if overseas) are you living now?

Write in State or Country: _____
(Please Print)

(Office Use) [ ][ ][ ] 12-14/

1A. As of today, how long have you lived here? (If less than 1 year, enter "0" for years and write in the number of months.)

Write in # Years and/or Months: [ ][ ] Years [ ][ ] Months 15-18/

2. Do you <u>now</u> live with your spouse at the same geographic location?

(Circle One)

Yes	1	--->	GO TO NEXT PAGE ------>	19/
No	2	--->	Continue with QUESTION 2A	

2A. Why aren't you living with your spouse?

(Circle All That Apply)

My spouse is on an unaccompanied tour	1		20/
I am in the military and assigned elsewhere	2		21/
My spouse left earlier and I will soon join him/her	3		22/
I did not want to leave my civilian job	4	GO TO	23/
I wanted to continue my education here	5	PAGE 3 --->	24/
We didn't want to disrupt our child(ren)'s schooling	6		25/
I did not want to live there	7		26/
We are having marital problems	8		27/
Other	9		28/

What? _____

3. When you moved here, which of the following happened?

(Circle All That Apply)

I was briefed about this post BEFORE I arrived	1	29/
I requested information about this post BEFORE I arrived	2	30/
I received information about this post from a sponsor BEFORE I arrived	3	31/
I got a "Welcome Packet" for this post BEFORE I arrived	4	32/
I got a "Welcome Packet" for this post AFTER I arrived	5	33/
I attended a welcome/orientation at this post	6	34/
I was welcomed to this post by a post representative	7	35/
None of the above	8	36/

4. Please rate how well the Army community (including your spouse's unit and sponsor) helped you get settled here:

(Circle One Number on Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. Made me feel welcome	1	2	3	4	5	37/
b. Helped me locate day to day necessities (for example, commissary, doctor)	1	2	3	4	5	38/
c. Helped me find permanent housing	1	2	3	4	5	39/
d. Told me about programs and activities that were available	1	2	3	4	5	40/

5. During your current marriage, how many times have you moved to a new location because of your spouse's Permanent Change of Station (PCS)?

Write in # of Times: ☐☐ 41-42/

6. **In the past month, how much of the time has your spouse's work schedule or absence posed the following problems for you or your family?**

(Circle One Number on Each Line)

	Does Not Apply	None of the Time	A Little of the Time	Some of the Time	Most of the Time	All of the Time	
a. Conflict with your work schedule	1	2	3	4	5	6	43/
b. Child care problem, (for example, needing someone to supervise or discipline your child(ren)	1	2	3	4	5	6	44/
c. Transportation problem, (for example, needing a car or ride for appointments or for taking child(ren) to school)	--	2	3	4	5	6	45/
d. Problem taking care of family health matters, (for example, doctor visits, sick child)	--	2	3	4	5	6	46/
e. Problem taking care of family financial or legal matters, like paying bills ...	--	2	3	4	5	6	47/

7. **Please rate how supportive of Army families each of the following is:**

(Circle One Number on Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. Your spouse's post/garrison leadership	1	2	3	4	5	48/
b. Your spouse's battalion leadership	1	2	3	4	5	49/
c. Your spouse's unit/company leadership	1	2	3	4	5	50/

8. Compare your spouse's career in the Army with a career he/she could realistically have in civilian life for the following:

(Circle One Number on Each Line)

	Does Not Apply	Army Much Better	Army Somewhat Better	No Difference	Civilian Life Somewhat Better	Civilian Life Much Better	
a. Your family's overall satisfaction	--	2	3	4	5	6	51/
b. Education for your child(ren)	1	2	3	4	5	6	52/
c. Your spouse's job security	--	2	3	4	5	6	53/
d. Your spouse's pay ...	--	2	3	4	5	6	54/
e. Your spouse's retirement benefits	--	2	3	4	5	6	55/
f. Your spouse's other benefits	--	2	3	4	5	6	56/

9. When your spouse finally leaves the Armed Forces, how many total years of active duty do you expect him/her to have served? (Do NOT count time in reserves.)

Write in # of Years: [ ][ ] 57-58/

10. How strongly do you AGREE or DISAGREE with each of the following statements?

(Circle One Number on Each Line)

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	
a. I talk up the Army to my friends as a great place to be associated with	1	2	3	4	5	59/
b. I find that my values and the Army's values are very similar	1	2	3	4	5	60/
c. There is not much to be gained for my family by sticking with the Army indefinitely	1	2	3	4	5	61/
d. The Army is the best of all places for my spouse to work	1	2	3	4	5	62/

11. **In your opinion, how necessary for Army mission accomplishment are the following?**

(Circle One Number On Each Line)

	Completely Necessary	Very Necessary	Somewhat Necessary	Somewhat Unnecessary	Very Unnecessary	Completely Unnecessary	
a. All the time your spouse spends at work in the Army	1	2	3	4	5	6	63/
b. All the PCS moves your family has made	1	2	3	4	5	6	64/
c. All the separations from your spouse because of his/her military duties	1	2	3	4	5	6	65/

12. **Add up all the time in the <u>past year</u> that your spouse was physically separated from you because of his/her military duties (including TDY's, deployments, and unaccompanied tours). How many total <u>months</u> would that be?**

(Circle One)

None	1	66/
Less than one month	2	
1 - 2 months	3	
3 - 4 months	4	
5 - 6 months	5	
7 - 8 months	6	
9 months or more	7	

13. **If a military conflict separated your spouse from you and your family for <u>6 months or more</u>, how sure are you that the ARMY would help with the following should the need arise?**

(Circle One Number on Each Line)

	Does Not Apply	Completely Sure	Very Sure	Somewhat Sure	Somewhat Unsure	Very Unsure	Completely Unsure	
a. Child care	1	2	3	4	5	6	7	67/
b. Family member's health	--	2	3	4	5	6	7	68/
c. Family finances	--	2	3	4	5	6	7	69/
d. Housing	--	2	3	4	5	6	7	70/
e. Emotional or parenting matters ...	--	2	3	4	5	6	7	71/
f. Evacuation of family members	--	2	3	4	5	6	7	72/

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1-8/

SECTION 2. MILITARY ALERTS, DEPLOYMENTS AND EXERCISES

Next, we'd like to know how military alerts, deployments and exercises affect you and your family.

14. In the past year, did your spouse have a NO-NOTICE alert?

(Circle One)

Yes ..... 1 ---> Continue with QUESTION 15 11/

No 2
Don't know 3
---> GO TO NEXT PAGE - - - - - - - >

15. Did any of the following happen to you during your spouse's MOST RECENT NO-NOTICE alert? If YES, did you seek help from the Army?

(Circle One in Each Column)

	Did This Happen?			IF YES, Did You Seek Help From Army?		
	No	Yes		No	Yes	
a. Being late to or absent from work	1	2				12/
b. Not having your dependent ID	1	2				13/
c. Not having power of attorney	1	2				14/
d. Problem getting childcare or taking child(ren) to school or daycare	1	2	--->	1	2	15-16/
e. Parenting problem, for example, discipline problem	1	2	--->	1	2	17-18/
f. Difficulty taking care of family health problems	1	2	--->	1	2	19-20/
g. Emotional problem (for example, depression, drug or alcohol problem)	1	2	--->	1	2	21-22/
h. Trouble managing household finances	1	2	--->	1	2	23-24/
i. Legal problem (for example, problem with lease)	1	2	--->	1	2	25-26/
j. Transportation problems	1	2	--->	1	2	27-28/

16. How many days was your spouse away for this MOST RECENT no-notice alert? (If less than 1 day, write in "0.")

Write in # of Days: [ ][ ] 29-30/

If you don't know, circle this number ----> 1 31/

17. In the past year, did your spouse have a PLANNED deployment or a PLANNED field training exercise of 2 WEEKS OR MORE?

(Circle One)

Yes ..... 1 ---> Continue with QUESTION 18 32/

No ..... 2 } ---> GO TO SECTION 3, PAGE 9 ------->

Don't know ..... 3 }

18. Did any of the following happen to you during your spouse's MOST RECENT PLANNED deployment or exercise? If YES, did you seek help from the Army?

(Circle One in Each Column)

	Did This Happen?		IF YES, Did You Seek Help From Army?		
	No	Yes	No	Yes	
a. Being late to or absent from work	1	2			33/
b. Not having your dependent ID	1	2			34/
c. Not having power of attorney	1	2			35/
d. Problem getting childcare or taking child(ren) to school or daycare	1	2 --->	1	2	36-37/
e. Parenting problem, for example, discipline problem	1	2 --->	1	2	38-39/
f. Difficulty taking care of family health problems	1	2 --->	1	2	40-41/
g. Emotional problem (for example, depression, drug or alcohol problem)	1	2 --->	1	2	42-43/
h. Trouble managing household finances	1	2 --->	1	2	44-45/
i. Legal problem (for example, problem with lease)	1	2 --->	1	2	46-47/
j. Transportation problems	1	2 --->	1	2	48-49/

19. How many days was your spouse away for the MOST RECENT planned deployment or exercise?

Write in # of Days: [ ] 50-51/

If you don't know, circle this number ----> 1 52/

20. Did any of the following happen BEFORE this deployment or exercise?

(Circle One in Each Column)

	Did This Happen?		IF YES, Did You Attend?		
	No	Yes		No	Yes
a. I was invited to attend a pre-deployment briefing	1	2	- - ->	1	2 53-54/
b. I was contacted to participate in a Unit Family Support Group	1	2	- - ->	1	2 55-56/

21. During this MOST RECENT planned deployment or exercise, how many times did you contact or seek help from the Unit Family Support Group? (If none, write in "0.")

Write in # of Times: [ ][ ] 57-58/

21A. Please rate how well the Unit Family Support Group worked for you.

(Circle One)

Does not apply - - I did not use 1 59/

Excellent 2
Very good 3
Good 4
Fair 5
Poor 6

22. During this deployment or exercise, how good was (were) your child care arrangement(s)?

(Circle One)

Does not apply - - I did not use 1 60/

Excellent 2
Very good 3
Good 4
Fair 5
Poor 6

SECTION 3. YOUR FAMILY

These next questions ask for some background information about your family and its well being.

23. How many members of your FAMILY, including yourself, your spouse, your children and anyone else who is financially dependent on you and/or your spouse, are:

A. Living with you <u>now</u> at this location?

Write in # Living with You: ☐☐ 61-62

B. NOT living with you now?

Write in # NOT Living with You: ☐☐ 63-64

24. <u>During 1986</u>, what was your <u>family</u> income <u>before taxes</u>? (Include your own income, your spouse's income, housing allowances and any other income or benefits.)

Write in 1986 Income in U.S. Dollars: $ _____ 65-70
U.S. Dollars

24A. How adequate is your <u>family</u> income in meeting your needs?

(Circle One)

Completely adequate	1	71
Adequate	2	
Somewhat adequate	3	
Somewhat inadequate	4	
Inadequate	5	
Completely inadequate	6	

25. How long does it usually take you to travel from your home to the commissary?

Write in # of Minutes: ☐☐☐ 72-74

26. Do you drive a car at this location?

(Circle One)

Yes	1	75
No	2	

CARD 02

CARD 03 9-10/
1-8/

27. Who usually does these jobs in your household when you and your spouse are at the same location?

(Circle One Number on Each Line)

	Does Not Apply	You Only	You Mostly	You & Spouse Equally	Spouse Mostly	Spouse Only	
a. Caring for child(ren) on a daily basis (for example, supervision or discipline) ...	1	2	3	4	5	6	11/
b. Handling bills.....	–	2	3	4	5	6	12/
c. Making family decisions	–	2	3	4	5	6	13/
d. Planning and taking care of PCS moves	–	2	3	4	5	6	14/
e. Doing the housework (for example, cooking, cleaning, shopping).....	–	2	3	4	5	6	15/
f. Planning, taking care of family recreational activities	–	2	3	4	5	6	16/

28. The following statements are about your relationship with your SPOUSE. How TRUE or FALSE has each one been for you during the <u>past 6 months</u>?

(Circle One Number on Each Line)

	Definitely True	Mostly True	Don't Know	Mostly False	Definitely False	
a. We said anything we wanted to say to each other.....	1	2	3	4	5	17/
b. We often had trouble sharing our personal feelings.....	1	2	3	4	5	18/
c. My spouse was supportive of me.....	1	2	3	4	5	19/
d. We tended to rely on other people for help rather than on each other.....	1	2	3	4	5	20/

SECTION 4. PROGRAMS AND SERVICES FOR YOUR CHILD(REN)

The questions in this section are about Army and civilian programs and services you use for your child(ren).

29. Do you have any children 19 years old or younger who live with you now?

(Circle One)

Yes..... 1 - - - > Continue on NEXT PAGE

No..... 2 - - - > GO TO SECTION 5, PAGE 18 - - - - - - - - - - - - - - - - >

21

30. How many children 5 years old or younger do you have who live with you now?

(Circle One)

None in this age range ..... 1 ---> GO TO PAGE 14 ---------->
One or more in this age range ..... 2 ---> Continue with QUESTION 31

31. Please answer the following questions about your use of Army and civilian childcare arrangements for your child(ren) 5 years old or younger.

(If you have more than one child 5 years old or younger, please answer for the YOUNGEST and OLDEST children in the 0 to 5 age range.)

	YOUNGEST OR ONLY CHILD 0 TO 5 YEARS OLD	OLDEST CHILD 0 TO 5 YEARS OLD
A. How old is this child? (If less than 1 year, enter "0.")	☐☐ Years Old	☐☐ Years Old
B. Do you use these childcare arrangements? IF YES, how many hours in a usual week?	Do You Use? No / Yes — IF YES: Write in Hours Per Week	Do You Use? No / Yes — IF YES: Write in Hours Per Week
Army Child Development Center (full, part day or hourly care)	1 / 2 --> ☐☐ hours per week	1 / 2 --> ☐☐ hours per week
Army Family Daycare	1 / 2 --> ☐☐ hours per week	1 / 2 --> ☐☐ hours per week
Civilian daycare, preschool or kindergarten	1 / 2 --> ☐☐ hours per week	1 / 2 --> ☐☐ hours per week
Private babysitting	1 / 2 --> ☐☐ hours per week	1 / 2 --> ☐☐ hours per week
Spouse	1 / 2 --> ☐☐ hours per week	1 / 2 --> ☐☐ hours per week
Friend, neighbor or relative	1 / 2 --> ☐☐ hours per week	1 / 2 --> ☐☐ hours per week
Older brother or sister	1 / 2 --> ☐☐ hours per week	1 / 2 --> ☐☐ hours per week
Child takes care of self at home	1 / 2 --> ☐☐ hours per week	1 / 2 --> ☐☐ hours per week
C. How much do you pay per week for the childcare arrangements you circled? (If none, write in "0.")	$ ☐☐☐ .00 dollars/per week	$ ☐☐☐ .00 dollars/per week

CARD 03

CARD 04 9-10/ 1-8/

32. Please rate the ARMY childcare services you usually use for your child(ren) 5 years old or younger:

(If you do NOT currently use Army childcare services, circle this number ----------> 1 and GO TO QUESTION 33.) 11/

(Circle One Number on Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. Ability to enroll child(ren) right away	1	2	3	4	5	12/
b. Availability for drop-in	1	2	3	4	5	13/
c. Convenience of hours	1	2	3	4	5	14/
d. Convenience of location	1	2	3	4	5	15/
e. Quality of care or supervision	1	2	3	4	5	16/
f. Cost	1	2	3	4	5	17/

33. Why do you use CIVILIAN childcare services instead of ARMY childcare services for your child(ren) 5 years old or younger?

(Circle All That Apply)

Does not apply - - I only use Army programs or services	1	18/
Does not apply - - I do not need childcare	2	19/
Waiting to get into Army program	3	20/
Army program we need is not available	4	21/
Convenience of location of civilian service	5	22/
Convenience of hours of civilian service	6	23/
Quality of care of civilian service	7	24/
Cost of civilian service	8	25/
Other	9	26/

What? _____

34. All things considered, how would you rate your childcare arrangement(s) for your child(ren) 5 years old or younger?

(Circle One)

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

35. How many school-aged children <u>between 6 and 12 years old</u> do you have who live with you now?

(Circle One)

None in this age range ..... 1 ---> GO TO PAGE 16 - - - - - - - - - - - -> 28/

One or more in this age range ..... 2 ---> Continue with QUESTION 36

BLANK 29-80/

36. Please answer the following questions about your use of Army and civilian childcare arrangements for your child(ren) <u>between 6 and 12 years old.</u>

(If you have more than one child between 6 and 12, please answer for the YOUNGEST and OLDEST children in the 6 to 12 age range.

CARD 05 9-10/

1-8/

	YOUNGEST OR ONLY CHILD 6 TO 12 YEARS OLD	OLDEST CHILD 6 TO 12 YEARS OLD
A. How old is this child?	☐☐ Years Old 11-12/	☐☐ Years Old 43-44/
B. Do you use these childcare arrangements? IF YES, how many hours in a <u>usual</u> week?	Do You Use? <u>No</u> <u>Yes</u> — IF YES: Write in Hours Per Week	Do You Use? <u>No</u> <u>Yes</u> — IF YES: Write in Hours Per Week
Army Child Development program.....	1 2 ---> ☐☐ hours per week 13-15/	1 2 ---> ☐☐ hours per week 45-47/
Army Family Daycare.....	1 2 ---> ☐☐ hours per week 16-18/	1 2 ---> ☐☐ hours per week 48-50/
On-post youth activity.....	1 2 ---> ☐☐ hours per week 19-21/	1 2 ---> ☐☐ hours per week 51-53/
Civilian after school program or youth activity.....	1 2 ---> ☐☐ hours per week 22-24/	1 2 ---> ☐☐ hours per week 54-56/
Private babysitting.....	1 2 ---> ☐☐ hours per week 25-27/	1 2 ---> ☐☐ hours per week 57-59/
Spouse.....	1 2 ---> ☐☐ hours per week 28-30/	1 2 ---> ☐☐ hours per week 60-62/
Friend, neighbor or relative.....	1 2 ---> ☐☐ hours per week 31-33/	1 2 ---> ☐☐ hours per week 63-65/
Older brother or sister.....	1 2 ---> ☐☐ hours per week 34-36/	1 2 ---> ☐☐ hours per week 66-68/
Child takes care of self at home.....	1 2 ---> ☐☐ hours per week 37-39/	1 2 ---> ☐☐ hours per week 69-71/
C. How much do you pay <u>per week</u> for the childcare arrangements you circled? (If none, write in "0.")	$ ☐☐☐ .00 dollars/per week 40-42/	$ ☐☐☐ .00 dollars/per week 72-74/

CARD 06 9-10/
1-8/

37. Please rate the ARMY childcare services you usually use for your school-aged child between 6 and 12 years old:

(If you do NOT currently use Army childcare services, circle this number - - - - - - - - - - - - -> 1 11/
and GO TO QUESTION 38.)

(Circle One Number on Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. Ability to enroll child(ren) right away.....	1	2	3	4	5	12/
b. Availability for drop-in.....	1	2	3	4	5	13/
c. Convenience of hours.....	1	2	3	4	5	14/
d. Convenience of location.....	1	2	3	4	5	15/
e. Quality of care or supervision.....	1	2	3	4	5	16/
f. Cost.....	1	2	3	4	5	17/

38. Why do you use CIVILIAN childcare services instead of ARMY childcare services for your school-aged child(ren) between 6 and 12 years old?

(Circle All That Apply)

Does not apply - - I only use Army programs or services	1	18/
Does not apply - - I do not need childcare	2	19/
Waiting to get into Army program	3	20/
Army program we need is not available	4	21/
Convenience of location of civilian service	5	22/
Convenience of hours of civilian service	6	23/
Quality of care of civilian service	7	24/
Cost of civilian service	8	25/
Other	9	26/

What? _____

39. All things considered, how would you rate your childcare arrangement(s) for your school-aged child(ren) between 6 and 12 years old?

(Circle One)

Excellent	1	27/
Very good	2	
Good	3	
Fair	4	
Poor	5	

40. Did any of your children between 6 and 19 years old participate in Army Youth Activities in the past 6 months?

(Circle One)

Yes	1	--->	Continue with QUESTION 41
No	2	--->	GO TO QUESTION 43, NEXT PAGE --->
Does not apply - - I have no children in this age range	3	--->	GO TO SECTION 5, PAGE 18 -------->

41. Please answer the following questions about the participation of your child(ren) between 6 and 19 years old in Army Youth Activities.

(If more than one child participated, answer for your YOUNGEST and the OLDEST children in the 6 to 19 age range.)

	YOUNGEST OR ONLY CHILD 6 TO 19 YEARS OLD		OLDEST CHILD 6 TO 19 YEARS OLD	
A. How old is this child?	☐☐ years old	29-30/	☐☐ years old	41-42/
B. Is the child:				
Male	1	31/	1	43/
Female	2		2	
C. In the past 6 months, how many times did the child take part in Army Youth Activities? (If none, write in "0.")	☐☐☐ # of times	32-34/	☐☐☐ # of times	44-46/
D. In the past 6 months, in which Army Youth Activities did the child participate?	(Circle All That Apply)			
Sports, like baseball or soccer	1	35-40/	1	47-52/
After school programs other than sports, like clubs, band, scouts, drama	2		2	
Social activities, like dances, outings	3		3	
Classes of instruction, like ballet, judo, crafts, swimming	4		4	
Informal after school activities, like video games, place to do homework	5		5	
Other	6		6	
What?_____				

CARD 06

42. **Please rate the Army Youth Activities your child(ren) between 6 and 19 years old used on the following:**

(Circle One Number on Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. Convenience of location	1	2	3	4	5	53/
b. Quality of supervision	1	2	3	4	5	54/
c. Quality of activities	1	2	3	4	5	55/
d. Convenience of hours	1	2	3	4	5	56/
e. Cost	1	2	3	4	5	57/

43. **If one or more of your children between 6 and 19 years old did NOT participate in Army Youth Activities, why not?**

(Circle All That Apply)

Does not apply -- they all participated	01	58-59
Child(ren) not interested	02	60-61
Did not know about activities	03	62-63
Activities child(ren) wanted were not available	04	64-65
Location of activities	05	66-67
Transportation to and from activities	06	68-69
Quality of supervision	07	70-71
Quality of activities	08	72-73
Cost	09	74-75
Child(ren) preferred civilian activities	10	76-77
Other	11	78-79

What? _____

CARD 07 9-10/
1-8/

SECTION 5. YOUR PAID WORK EXPERIENCE

These questions ask about your military background (if any), your experience looking for work and the kinds of jobs you have had.

44. Have you ever served in the U.S. Armed Forces, either on active duty or in the reserves?

(Circle One)

No	1		11/
Yes, separated from Armed Forces	2		
Yes, currently on active duty in Army	3	What is your pay grade?	12-13/
Yes, currently on active duty in Navy, Marine Corps, or Air Force	4		
Yes, currently in a Reserve/Guard Component	5		

IF YOU ARE NOW ON ACTIVE DUTY IN THE ARMY, NAVY, MARINE CORPS OR AIR FORCE, GO TO SECTION 6, PAGE 25. - - - - - - - - - - - - - - - ->

45. Are you now...

(Circle All That Apply)

Working full-time in Federal job	01	14-15/
Working full-time in other civilian job	02	16-17/
Working part-time in Federal job	03	18-19/
Working part-time in other civilian job	04	20-21/
Self-employed in own business	05	22-23/
With a job but not at work because of temporary illness, vacation, strike	06	24-25/
Unpaid worker in family business	07	26-27/
Unemployed, laid off or looking for work	08	28-29/
In school	09	30-31/
Retired	10	32-33/
A homemaker	11	34-35/
Other	12	36-37/

What? _____

46. Since you have been at this location, have you ever looked for a paid job?

(Circle One)

Yes	1	--->	Continue with QUESTION 46A
No	2	--->	GO TO NEXT PAGE - - - - - - - ->

46A. How many weeks have you looked (did you look) for your FIRST job at this location? (If less than 1 week, write in "0.")

Write in # of Weeks: [ ][ ] 39-40

47. If you have used the Army's family member employment service at this location, how would you rate the service(s) you received?

(Circle One)

Does not apply - - I haven't used	1	41
Excellent	2	
Very Good	3	
Good	4	
Fair	5	
Poor	6	

47A. Why haven't you used the Army's family member employment service?

(Circle All That Apply)

Does not apply - - I have used this service	1	42
I did not know service was available	2	43
The location, hours are inconvenient	3	44
I was concerned about confidentiality	4	45
I did not think service would help	5	46
Other	6	47

What? _____

48. **Have you ever worked <u>for pay</u> at your <u>current</u> location?**

(Circle One)

Yes	1	- - ->	Continue with QUESTION 49
No	2	- - ->	GO TO NEXT PAGE - - - - - ->

48

49. **Which one of the following was the <u>most important</u> in finding your FIRST job at your current location?**

(Circle One)

Army Community Services (ACS)	01	49-50
Army's Civilian Personnel Office (CPO)	02	
Army Family Member Employment Service	03	
Private employment placement agency	04	
Newspaper advertisement	05	
Checked with employer directly	06	
A relative or friend	07	
Military sponsor	08	
Through volunteer work	09	
Other	10	

What? _____

Continue on Next Page - - - - - - - - - >

50. Now think about your CURRENT or MOST RECENT paid job at this location. Which of the following comes closest to describing this job?

(Circle One)

CHILD DEVELOPMENT, or other day care worker	01	51-52
CLERICAL, such as bank teller, bookkeeper, secretary, typist, ticket agent	02	
CRAFTSMAN, such as baker, automobile mechanic, machinist, painter plumber, telephone installer, carpenter	03	
LABORER, such as construction worker, car washer, sanitary worker	04	
MANAGER, ADMINISTRATOR, such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	05	
OPERATIVE, such as assembler, machine operator, welder, taxicab, or bus driver	06	
SCHOOL TEACHER, elementary or secondary	07	
PROFESSIONAL, such as social worker, sports coordinator, accountant, computer programmer, artist, registered nurse, engineer, librarian, writer	08	
PROFESSIONAL, such as dentist, physician, lawyer, scientist, college teacher	09	
PROPRIETOR OR OWNER, such as owner of a small business, contractor	10	
SALES, such as salesperson, advertising or insurance agent, real estate broker	11	
SERVICE, such as barber, beautician, practical nurse, private household worker, janitor, waiter, waitress, food service worker	12	
TECHNICAL, such as draftsman, medical or dental technician, computer operator	13	

50A. What kind of job is (was) this?

(Circle One)

Full-time Federal job..... 1
Full-time other civilian job..... 2
Part-time Federal job..... 3
Part-time other civilian job..... 4

53

Write in Usual Hours Per Week: ☐☐ 54-55

50B. What is (was) your MONTHLY salary before deductions? (Include tips or commissions.)

Write in Amount: $ ☐☐☐☐ .00 56-59
U.S. Dollars

CARD 07

51. Have you worked for pay in the past month?

(Circle One)

Yes	1	--->	Continue with QUESTION 52	60/
No	2	--->	GO TO PAGE 24 ------->	

52. In the past month, how much time did you take off from your job for the following PERSONAL reasons? (Please count time when you were sick, arrived late or left early, but do NOT include vacation time.)

(NOTE: Please consider personal reasons separately from family reasons, which are covered on the next page.)

(Circle One Number on Each Line)

Personal Reasons	Does Not Apply	0 to 15 Minutes	16 Minutes to 2 Hours	2 to 7 Hours	IF 1 DAY OR MORE, WRITE IN # OF DAYS	
a. Your education (for example, school conflicted with work)	--	2	3	4	☐☐ # of days	61-63/
b. Your transportation (for example, car wouldn't start or bus was late)	--	2	3	4	☐☐ # of days	64-66/
c. Pregnancy (for example, prenatal care or doctor visit)	1	2	3	4	☐☐ # of days	67-69/
d. Your health (for example, sick or doctor/ dentist appointment)	--	2	3	4	☐☐ # of days	70-72/
e. Personal business (for example, financial matters)	--	2	3	4	☐☐ # of days	73-75/
f. Other personal reasons	--	2	3	4	☐☐ # of days	76-78/

CARD 08 9-10/
1-8/

53. In the past month, how much time did you take off from your job for the following FAMILY reasons? (Please count time when you arrived late or left early, but do NOT include vacation time.)

Family Reasons	(Circle One Number on Each Line) Does Not Apply	0 to 15 Minutes	16 Minutes to 2 Hours	2 to 7 Hours	IF 1 DAY OR MORE, WRITE IN # OF DAYS	
a. Caring for child(ren) on a daily basis (for example, supervision or discipline)...	1	2	3	4	☐☐ # of days	11-13/
b. Other care of child(ren) (for example, sick child or visit to school).....	1	2	3	4	☐☐ # of days	14-16/
c. Helping spouse (for example, illness or emotional problem).....	--	2	3	4	☐☐ # of days	17-19/
d. Family business (for example, financial matters or housing problems).....	--	2	3	4	☐☐ # of days	20-22/
e. Family transportation (for example, to doctor appointment or to school).....	--	2	3	4	☐☐ # of days	23-25/
f. Other family matter.....	--	2	3	4	☐☐ # of days	26-28/

Continue on Next Page ---------->

CARD 08

54. Thinking of all the paid jobs you ever have had, which one was the best?

(Circle One)

29/

Have never had a paid job 1		
My current or most recent job at this location 2	- - ->	GO TO NEXT PAGE - - - - ->
Another job 3	- - ->	Continue with QUESTION 55

55. Which of the following categories comes closest to describing this BEST job?

(Circle One)

30-3

CHILD DEVELOPMENT, or other day care worker	01
CLERICAL, such as bank teller, bookkeeper, secretary, typist, ticket agent	02
CRAFTSMAN, such as baker, automobile mechanic, machinist, painter plumber, telephone installer, carpenter	03
LABORER, such as construction worker, car washer, sanitary worker	04
MANAGER, ADMINISTRATOR, such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	05
OPERATIVE, such as assembler, machine operator, welder, taxicab, or bus driver	06
SCHOOL TEACHER, elementary or secondary	07
PROFESSIONAL, such as social worker, sports coordinator, accountant, computer programmer, artist, registered nurse, engineer, librarian, writer	08
PROFESSIONAL, such as dentist, physician, lawyer, scientist, college teacher	09
PROPRIETOR OR OWNER, such as owner of a small business, contractor	10
SALES, such as salesperson, advertising or insurance agent, real estate broker	11
SERVICE, such as barber, beautician, practical nurse, private household worker, janitor, waiter, waitress, food service worker	12
TECHNICAL, such as draftsman, medical or dental technician, computer operator	13

55A. What kind of job was this?

(Circle One)

32/

Full-time Federal job	1
Full-time other civilian job	2
Part-time Federal job	3
Part-time other civilian job	4

SECTION 6. YOU AND YOUR WELL-BEING

Next are some questions about your background and how things have been for you lately.

56. Are you:

(Circle One)

Male 1 *33/*
Female 2

57. How old were you on your last birthday?

Write in Your Age: ☐☐ *34-35/*

58. Where were you born?

(Circle One)

In the United States 1 *36/*
In Germany 2
In Korea 3
Other 4
Where?_____

59. Are you currently:

(Circle One)

Married for the first time 1 *37/*
Remarried 2
Legally separated 3

59A. How long have you been married to your current spouse? (If less than 1 year, write in "0" .)

Write in # of Years: ☐☐ *38-39/*

60. What is the highest grade or year of regular school or college that you have completed?

(Circle One)

Eighth grade or less	1	40/
Some high school, but no diploma/equivalency	2	
High school diploma/equivalency	3	
Some college, but no bachelor's degree	4	
Bachelor's degree (BA, BS)	5	
Some graduate school, but no degree	6	
Post-graduate degree (MA , PhD, LLD, MD)	7	

61. Are you now attending school (high school, trade or technical school, college, university) at your current location?

(Circle One)

Yes, as a full-time student	1	---> Continue with QUESTION 61A	41/
Yes, as a part-time student	2		
No	3	---> GO TO NEXT PAGE ----->	

61A. What kind of degree are you now working toward?

(Circle One)

No degree	1	42/
High school diploma or equivalent	2	
Certificate from trade or technical school	3	
Associate's degree	4	
Bachelor's degree	5	
Master's degree	6	
Professional degree (PhD, LLD, MD, DDS)	7	

62. In the past month, how many hours of volunteer work did you do?

A. Army-based volunteer work:
(If none, write in "0.")

Write in Hours in Past Month: ☐☐☐ 43-45/

B. Civilian-based volunteer work:
(If none, write in "0.")

Write in Hours in Past Month: ☐☐☐ 46-48/

62A. Which of the following best describes your MAIN reason for spending time on Army-based volunteer work?

(Circle One)

Does not apply - - I did not do Army-based volunteer work	1	49/
I wanted to	2	
To help my spouse's career	3	
To gain experience for future jobs	4	
To meet people	5	
To support activities used by my child(ren)	6	

63. People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you when needed?

(Circle One Number on Each Line)

	None of the Time	A Little of the Time	Some of the Time	Most of the Time	All of the Time	
a. Someone you can count on to listen to you when you need to talk	1	2	3	4	5	50/
b. Someone who shows you love and affection	1	2	3	4	5	51/
c. Someone to do something enjoyable with	1	2	3	4	5	52/
d. Someone to help with daily chores if you were sick	1	2	3	4	5	53/
e. Someone to loan you money	1	2	3	4	5	54/

64. For each of the following, please circle the number for the one answer that comes closest to the way you have been feeling during the past month.

(Circle One Number on Each Line)

	None of the Time	A Little of the Time	Some of the Time	A Good Bit of the Time	Most of the Time	All of the Time	
a. How much of the time, during the past month, have you been a very nervous person?	1	2	3	4	5	6	55/
b. During the past month, how much of the time have you felt calm and peaceful?	1	2	3	4	5	6	56/
c. How much of the time, during the past month, have you felt downhearted and blue?	1	2	3	4	5	6	57/
d. During the past month, how much of the time have you been a happy person?...	1	2	3	4	5	6	58/
e. How much of the time, during the past month, have you felt so down in the dumps that nothing could cheer you up?	1	2	3	4	5	6	59/

65. Have you had 2 YEARS or more in your life when you felt depressed or sad most days, even if you felt OK sometimes?

(Circle One)

Yes	1	- - ->	Continue with QUESTION 65A
No	2	- - ->	GO TO QUESTION 66

60/

65A. Have you felt depressed or sad much of the time in the past YEAR?

(Circle One)

Yes 1
No 2

61/

66. In the past year, have you had 2 WEEKS or more in which you felt sad or depressed or when you lost all interest or pleasure in things that you usually cared about or enjoyed?

(Circle One)

Yes 1
No 2

62/

SECTION 7. YOUR USE OF PROGRAMS AND SERVICES

This section asks about YOUR OWN use of Army and civilian programs and services.

7A. Your Use of Counseling Services

67. Did YOU experience any of the following in the past 6 months?

(Circle One Number on Each Line)

	Does Not Apply	Yes	No	
a. Job-related problem	--	2	3	63/
b. Emotional or nervous problem	--	2	3	64/
c. Drug/alcohol-related problem	--	2	3	65/
d. Stress-related problem	--	2	3	66/
e. Financial difficulty	--	2	3	67/
f. Marital difficulty	--	2	3	68/
g. Parenting difficulty	1	2	3	69/
h. Family violence	--	2	3	70/

68. In the past 6 months, did YOU use the following ARMY services for help with any of the above problems or for any other personal reasons? If YES, how many times did you use the service?

CARD 09

9-10/

1-8/

	Did You Use? No	Yes	IF YES, Write in # of Times	
a. Army Drug and Alcohol Counseling Center	1	2 -->	☐☐ # of times	11-13/
b. Army Family Life Center	1	2 -->	☐☐ # of times	14-16/
c. Army Chaplain	1	2 -->	☐☐ # of times	17-19/
d. Army hospital social workers or mental health unit	1	2 -->	☐☐ # of times	20-22/
e. Army Community Services (ACS)	1	2 -->	☐☐ # of times	23-25/
f. Army Emergency Relief (AER)	1	2 -->	☐☐ # of times	26-28/
g. Red Cross	1	2 -->	☐☐ # of times	29-31/

(If you did not use any of these, circle this number ----------> 1 and GO TO PAGE 31.) 32/

69. Which Army service did you MOST RECENTLY use in the past 6 months?

(Circle One)

Army Drug and Alcohol Counseling Center .....
Army Family Life Center .....
Army Chaplain .....
Army hospital social workers or mental health unit .....
Army Community Services (ACS) .....
Army Emergency Relief (AER) .....
Red Cross .....

69A. What was the main reason you used the service you marked in Question 69 above?

(Circle One)

Job-related problem .....
Emotional or nervous problem .....
Drug/alcohol-related problem .....
Stress-related problem .....
Financial difficulty .....
Marital difficulty .....
Parenting difficulty .....
Family violence .....
Other .....
What?_____

69B. Please rate the service you received:

(Circle One)

Excellent 1
Very Good 2
Good 3
Fair 4
Poor 5

70. If you did NOT use any Army counseling services in the past 6 months, why not?

(Circle All That Apply)

Does not apply - - I did use Army services	01	36-37/
I was not sure service I needed was available	02	38-39/
The service I needed was not available	03	40-41/
I was referred by the Army to a civilian service	04	42-43/
I had concerns about confidentiality/spouse's Army career	05	44-45/
The location or hours were inconvenient	06	46-47/
I had concerns about quality of care	07	48-49/
I wanted to handle problem on my own	08	50-51/
I did not need the service	09	52-53/
Other	10	54-55/

What? _____

71. In the past 6 months, how many times did you go to CIVILIAN services for help with emotional, stress, job, family, or drug/alcohol-related problems or for any other personal reasons? (If none, write in "0.")

Write in # of Times: ☐☐ 56-57/

71A. What was the main reason for your MOST RECENT use of a civilian service in the past 6 months?

(Circle One)

Does not apply - - I did not use	01	58-59/
Job-related problem	02	
Emotional or nervous problem	03	
Drug/alcohol-related problem	04	
Stress-related problem	05	
Financial difficulty	06	
Marital difficulty	07	
Parenting difficulty	08	
Family violence	09	
Other	10	

What? _____

CARD 09

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1-8/

7B. Your Use of Health Care Facilities

These questions are about YOUR OWN use of health care facilities.

72. In the past 6 months, did you PERSONALLY use the following ARMY health care services? If YES, how many times did you use the service?

	Did You Use? No	Did You Use? Yes	IF YES, Write in # of Times	
a. Visit(s) to an Army emergency room	1	2 - - >	# of times	11-13/
b. Visit(s) to an Army medical doctor's office or clinic for a physical problem	1	2 - - >	# of times	14-16/
c. Visit(s) to an Army medical doctor's office or clinic for preventive or prenatal care (routine exam, immunization)	1	2 - - >	# of times	17-19/
d. Visit(s) to an Army medical doctor's office or clinic for a personal or emotional problem	1	2 - - >	# of times	20-22/
e. Visit(s) to an Army social worker or mental health professional (psychologist, psychiatrist)	1	2 - - >	# of times	23-25/
f. Overnight Army hospital stay(s) for a personal or emotional problem	1	2 - - >	# of times	26-28/
g. Overnight Army hospital stay(s) for physical health problems or maternity care	1	2 - - >	# of times	29-31/
h. Visit(s) to an Army dental clinic	1	2 - - >	# of times	32-34/

73. In terms of your satisfaction with Army health care services you personally have received in the past 6 months, please rate the following. (Do not include dental care.)

(If you have not used Army health care services in the past 6 months, circle this number ----------> 1 and GO TO NEXT PAGE.) 35/

(Circle One Number on Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. The convenience of the location	1	2	3	4	5	36/
b. The time it took to get an appointment scheduled	1	2	3	4	5	37/
c. The time you waited for the appointment after scheduling it	1	2	3	4	5	38/
d. The time you waited in the office or waiting room	1	2	3	4	5	39/
e. The technical skills (thoroughness, carefulness, competence) of your doctor(s) and other health care personnel	1	2	3	4	5	40/
f. The personal manner (courtesy, respect, sensitivity, friendliness) of your doctor(s) and other health care personnel	1	2	3	4	5	41/
g. The overall quality of Army health care services you received	1	2	3	4	5	42/

Continue on Next Page - - - - - - >

74. In the past 6 months, did you PERSONALLY use the following CIVILIAN health care services? If YES, how many times did you use the services?

(If you have not used civilian health care services in the past 6 months, circle this number ----------> 1 and GO TO NEXT PAGE.)

	Did You Use? No	Yes	IF YES, Write in # of Times	
a. Visit(s) to a civilian emergency room	1	2 - - >	# of times	44-46
b. Visit(s) to a civilian medical doctor's office or clinic for a physical problem	1	2 - - >	# of times	47-49
c. Visit(s) to a civilian medical doctor's office or clinic for preventive or prenatal care (routine exam, immunization)	1	2 - - >	# of times	50-52
d. Visit(s) to a civilian medical doctor's office or clinic for a personal or emotional problem	1	2 - - >	# of times	53-55
e. Visit(s) to a civilian social worker or mental health professional (psychologist, psychiatrist)	1	2 - - >	# of times	56-58
f. Overnight civilian hospital stay(s) for a personal or emotional problem	1	2 - - >	# of times	59-61
g. Overnight civilian hospital stay(s) for physical health problems or maternity care	1	2 - - >	# of times	62-64
h. Visit(s) to a civilian dental clinic	1	2 - - >	# of times	65-67

74A. Did the Army pay for any of these civilian health care expenses?

(Circle One)

Yes, the Army paid for all of them 1
Yes, the Army paid for some of them 2
No, the Army paid for none of them 3

CARD 11 9-10/

7C. Your Use of Other Programs and Services

1-8/

75. In the past 6 months, did you PERSONALLY use the following Army-sponsored services or activities? If YES, how many times did you use the service?

	Did You Use? No	Did You Use? Yes	IF YES, Write in # of Times	
a. Library	1	2 -->	☐☐ # of times	11-13/
b. Arts and Crafts (for example, photography, painting, ceramics)	1	2 -->	☐☐ # of times	14-16/
c. Auto crafts	1	2 -->	☐☐ # of times	17-19/
d. Music and theater	1	2 -->	☐☐ # of times	20-22/
e. Recreation center	1	2 -->	☐☐ # of times	23-25/
f. Indoor athletics (gymnasium)	1	2 -->	☐☐ # of times	26-28/
g. Bowling	1	2 -->	☐☐ # of times	29-31/
h. Outdoor recreation (for example, camping, hiking, horseback riding)	1	2 -->	☐☐ # of times	32-34/
i. Outdoor athletics (for example, baseball, golf, swimming)	1	2 -->	☐☐ # of times	35-37/
j. Clubs	1	2 -->	☐☐ # of times	38-40/

76. Because there was not enough room to cover all Army programs and services, we may have left out some that are important to you. Use the space below to comment on Army programs and services you and your family have used or would like to have available. (We will read all your comments.)

41/

77. Not counting interruptions, how many minutes did it take you to complete the questionnaire?

Write in # of minutes: ☐☐ 42-43/

78. Would you like a copy of the study's results? The report will be ready in the Fall of 1988.

(Circle One)

Yes 1 44/
No 2

CARD 11

THIS COMPLETES THE QUESTIONNAIRE.

THANK YOU FOR YOUR HELP IN THIS IMPORTANT STUDY.

WE APPRECIATE YOUR TIME AND EFFORT.

Please remember to mail your questionnaire to RAND in the postage-paid return envelope.

THE RAND CORPORATION
1700 Main Street, PO Box 2138
Santa Monica, CA 90406-2138

Approval Authority: U.S. Army Soldier Support Center
Survey Control Number ATNC-AO-87-20-A RCS MILPC-3

ARMY FAMILY PROGRAMS AND READINESS

1987 SURVEY OF ARMY OFFICERS AND ENLISTED PERSONNEL

The Army wants to provide the best support programs it can for you and your family. You can help by responding to this questionnaire, which is part of a study about Army Support Programs. This information will help us improve the programs we now have and plan future ones.

The study is being conducted for the Army by the RAND Arroyo Center, a non-profit research center in Santa Monica, California. If you want to be part of the study, please fill out and return the questionnaire. The research center will hold your answers in confidence.

Before you begin the questionnaire, please read the instructions on the inside cover.

Thank you for taking part in this study.

Statement of Confidentiality

All information that would permit identification of you or your family will be regarded as strictly confidential. Such information will be used only for the purposes of the study and will not be disclosed or released for any other purpose unless you agree beforehand in writing, except as required by law.

(Office Use Only)

CARD 01 9-10/

I D Label 1-8/

THE RAND CORPORATION

Form: M 11/

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

- **Please read each question carefully before you give your answer.**
- **Answer the questions by CIRCLING the appropriate number or numbers, or by WRITING in the answer as requested.**

EXAMPLES: 1. Do you now live at the same geographic location as your spouse?

(Circle One)

Yes..... (1)
No..... 2

2. How much do you pay per week for your childcare arrangements?
(If none, write in "0.")

Write in Dollars Per Week: $ 045 .00
U.S. Dollars

- **Please answer every question, unless you are asked to SKIP questions that don't apply to you. In that case, follow the instructions NEXT to the answer you have circled.**

EXAMPLE: 3. Do you have any children under 18 who live with you now?

(Circle One)

Yes..... 1 - - -> **Continue with QUESTION 4**
No..... (2) - - -> **GO TO NEXT PAGE - - ->**

- **If you are unsure about how to answer a question, give the best answer you can and make a comment in the LEFT margin.**

SECTION 1. YOUR LIVING ARRANGEMENTS

First, we'd like some information and opinions about your living arrangements, including such things as your current location and PCS moves.

1. **As of today, how many <u>months</u> have you been at your current duty station?**

Write in # of Months: ☐☐ *12-13/*

2. **When you moved to your <u>current</u> duty station, which location preference did you actually receive?**

(Circle One)

I did not make any request	1	*14/*
I was not assigned to any location of my preference	2	
My 1st preference	3	
My 2nd preference	4	
My 3rd or lower preference	5	

3. **When you moved here, which of the following happened?**

(Circle All That Apply)

I was briefed about this post BEFORE I arrived	01	*15-16/*
I requested a sponsor	02	*17-18/*
I was assigned a sponsor BEFORE I arrived	03	*19-20/*
I was assigned a sponsor AFTER I arrived	04	*21-22/*
I received information about this post from my sponsor BEFORE I arrived	05	*23-24/*
I got a "Welcome Packet" for this post BEFORE I arrived	06	*25-26/*
I got a "Welcome Packet" for this post AFTER I arrived	07	*27-28/*
I attended a welcome/orientation at this post	08	*29-30/*
I was welcomed to this post by a post representative	09	*31-32/*
None of the above	10	*33-34/*

4. Please rate how well the Army community (including your unit and sponsor) helped you get settled here:

(Circle One Number On Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. Made me feel welcome	1	2	3	4	5	35/
b. Told me about my new assignment	1	2	3	4	5	36/
c. Helped me locate day-to-day necessities (for example, commissary, doctor)	1	2	3	4	5	37/
d. Helped me find permanent housing	1	2	3	4	5	38/
e. Told me about programs and activities that were available	1	2	3	4	5	39/

5. How many days did you take off duty time to look for housing at this location? (DO NOT include leave time.)

A. BEFORE you arrived?
(If none, or less than 1 day, write in "0.")

Write in # of Days: ☐☐ 40-41/

B. AFTER you arrived?
(If none, or less than 1 day, write in "0.")

Write in # of Days: ☐☐ 42-43/

6. After your arrival, how many WEEKS did it take before you were able to move into the barracks or your own FIRST apartment or house? (If less than 1 week, enter "0.")

Write in # of Weeks: ☐☐ 44-45/

6A. How did you find this housing?

(Circle One)

46/

Assigned by Army 1
Through Army Housing Referral Service 2
Through another military member 3
Through a friend, relative or spouse 4
Through a private real estate agent or housing locating service 5
Through a newspaper ad 6
On my own 7

7. **After your arrival, did you get on a waiting list for <u>government</u> housing?**

(Circle One) 47/

Yes..... 1 ---> IF YES: How many weeks were you (have you been) on the waiting list? ☐☐ # of Weeks 48-49/

No..... 2

8. **In what type of housing do you live <u>now</u>?**

(Circle One) 50/

Civilian rental housing..... 1

Home owned by me or family member:..... 2

What is the <u>monthly</u> rent or mortgage payment in U.S. Dollars? (Do NOT include utilities.) $☐☐☐☐.00 U.S. Dollars 51-54/

On-Base Family Housing..... 3

Barracks, BEQ or BOQ..... 4

Off-Base Military Housing, including leased and rental guaranteed housing..... 5

9. **How many Permanent Change of Station (PCS) moves have you made since you have been on active duty?**

(Circle One)

One - - this is my first PCS location ..... 1 ---> GO TO NEXT PAGE - - - -> 55/

More than one ..... 2 ---> How many PCS moves have you made?

# of Moves: ☐☐ 56-57/

10. **Where was your <u>previous</u> PCS location just before moving here?**

_____
Name of Community or Installation

58-60/

(OFFICE USE) ☐☐☐

11. **How do your current living expenses compare with your living expenses at your previous PCS location?**

My <u>current</u> expenses are:

(Circle One)

Much higher 1 61/

Somewhat higher 2

About the same 3

Somewhat lower 4

Much lower 5

SECTION 2. MILITARY ALERTS, DEPLOYMENTS AND EXERCISES

Next are some questions about your unit's recent military alerts, deployments and exercises at this installation.

12. In the past year, did you have a NO-NOTICE alert, NO-NOTICE deployment, or NO-NOTICE field training exercise (FTX) at this installation?

(Circle One)

Yes	1	---> Continue with QUESTION 13	62/
No	2	---> GO TO PAGE 6 - - - - - - - - - - >	

13. Did you arrive late or entirely miss your MOST RECENT no-notice alert, deployment or exercise?

(Circle One)

No	1	63/
Yes, I was late	2	
Yes, I missed it entirely	3	

13A. Why did you arrive late or miss the alert, deployment or exercise?

(Circle All That Apply)

Does not apply - - I did not arrive late or miss it	1	64/
I was not contacted	2	65/
I did not have transportation	3	66/
I did not have adequate child care arrangements	4	67/
Because of other family reasons	5	68/
Because of personal reasons	6	69/

Continue on Next Page - - - - >

CARD 02 9-10/

1-8/

14. Did your last NO-NOTICE alert result in a deployment or field training exercise?

(Circle One)

Yes ..... 1 - - > Continue with QUESTION 15 11/

No ..... 2 - - > GO TO NEXT PAGE - - - - - - - - - ->

15. How many days did this deployment or exercise last?

Write in # of Days: ☐☐ 12-13/

16. How many days did you stay with your unit for this NO-NOTICE deployment or exercise? (If you left before the first day was over, write in "0".)

Write in # of Days: ☐☐ 14-15/

16A. If you left early, what was the main reason you left early?

(Circle One)

Does not apply - - I did not leave early 1 16/

Death or emergency in family 2
Care of child(ren) 3
Other family reason 4
Personal reason 5
Military duty requirement 6
Some other reason 7

What? _____

17. During this NO-NOTICE deployment or exercise, how good was (were) your child care arrangement(s)?

(Circle One)

Does not apply - - I did not need child care ... 1 17/

Excellent 2
Very good 3
Good 4
Fair 5
Poor 6

18. In the past year, did you have a PLANNED deployment or a PLANNED field training exercise of 2 WEEKS OR MORE at this installation?

(Circle One)

Yes	1	---> Continue with QUESTION 19	18/
No	2	---> GO TO NEXT PAGE ------>	

19. How many days did your MOST RECENT planned deployment or exercise of 2 weeks or more last?

Write in # of Days: ☐☐ 19-20/

20. How many days did you stay with your unit for this deployment or exercise? (If you left before the first day was over, write in "0.")

Write in # of Days: ☐☐ 21-22/

20A. If you left early, what was the main reason you left early?

(Circle One)

Does not apply - - I did not leave early	1	23/
Death or emergency in family	2	
Care of child(ren)	3	
Other family reason	4	
Personal reason	5	
Military duty requirement	6	
Some other reason	7	

What?_____

21. During this deployment or exercise, how good was (were) your child care arrangement(s)?

(Circle One)

Does not apply - - I did not need child care	1	24/
Excellent	2	
Very good	3	
Good	4	
Fair	5	
Poor	6	

21A. How good would this (these) same child care arrangement(s) have been if you had been deployed for 6 months or more?

(Circle One)

Does not apply	1	25/
Excellent	2	
Very good	3	
Good	4	
Fair	5	
Poor	6	
Would not have been possible for that period of time	7	

SECTION 3. LIFE IN THE ARMY

These questions are about your life in the Army, including such things as your recent activities, your satisfaction with your job and your future career plans.

22. In the past month, how much time did you take off from duty for the following PERSONAL reasons? (Please count time when you were sick, arrived late or left early, but do NOT include leave time.)

(NOTE: Please consider personal reasons separately from family reasons, which are covered on the next page.)

(Circle One Number on Each Line)

Personal Reasons	Does Not Apply	0 to 15 Minutes	16 Minutes to 2 Hours	2 to 7 Hours	IF 1 DAY OR MORE, WRITE IN # OF DAYS	
a. Your education (if NOT part of your military duties).....	--	2	3	4	☐☐ # of days	26-28/
b. Your transportation (for example, car wouldn't start or bus was late).....	--	2	3	4	☐☐ # of days	29-31/
c. Pregnancy (for example, prenatal care or doctor visits).....	1	2	3	4	☐☐ # of days	32-34/
d. Your health (for example, sick or doctor/ dentist appointment).....	--	2	3	4	☐☐ # of days	35-37/
e. Personal business (for example, financial matters).....	--	2	3	4	☐☐ # of days	38-40/
f. Other personal reasons.....	--	2	3	4	☐☐ # of days	41-43/

23. In the past month, how much time did you take off from duty for the following FAMILY reasons? (Please count time when you arrived late or left early, but do NOT include leave time.)

(If you do NOT have a spouse or children, circle this number - - - - - - - - - - - - - - - - - - > 1 and GO TO QUESTION 24 BELOW.) *44/*

(Circle One Number on Each Line)

Family Reasons	Does Not Apply	0 to 15 Minutes	16 Minutes to 2 Hours	2 to 7 Hours	IF 1 DAY OR MORE, WRITE IN # OF DAYS	
a. Caring for child(ren) on a daily basis (for example, supervision or discipline).....	1	2	3	4	☐☐ # of days	*45-47/*
b. Other care of child(ren) (for example, sick child or visit to school).....	1	2	3	4	☐☐ # of days	*48-50/*
c. Helping spouse (for example, illness or emotional problem).....	- -	2	3	4	☐☐ # of days	*51-53/*
d. Family business (for example, financial matters or housing problems).....	- -	2	3	4	☐☐ # of days	*54-56/*
e. Family transportation (for example, to doctor appointment or to school).....	- -	2	3	4	☐☐ # of days	*57-59/*
f. Other family matter.....	- -	2	3	4	☐☐ # of days	*60-62/*

24. Please rate how supportive of Army families each of the following is:

(Circle One Number On Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. Your post/garrison leadership.....	1	2	3	4	5	*63/*
b. Your battalion leadership.....	1	2	3	4	5	*64/*
c. Your unit/company leadership.....	1	2	3	4	5	*65/*

25. During the past month, how often did the following happen while you were on duty?

(Circle One Number On Each Line)

	None of the Time	A Little of the Time	Some of the Time	Most of the Time	All of the Time	
a. My mind was not on the job	1	2	3	4	5	66/
b. I lost my temper	1	2	3	4	5	67/
c. I accomplished less than I would like	1	2	3	4	5	68/
d. I was not at my best	1	2	3	4	5	69/
e. I was more likely to make mistakes	1	2	3	4	5	70/
f. I was criticized by co-workers	1	2	3	4	5	71/
g. I had problems with a superior	1	2	3	4	5	72/

CARD 08 9-10/

26. In the past month, when you were on duty at the post or garrison: 1-8/

A. How many DAYS did you usually work each week?

Write in # of Days: ☐☐ 11-12/

B. How many HOURS did you usually work each day?

Write in # of Hours: ☐☐ 13-14/

27. In your opinion, how necessary for Army mission accomplishment are the following?

(Circle One Number On Each Line)

	Does Not Apply	Completely Necessary	Very Necessary	Somewhat Necessary	Somewhat Unnecessary	Very Unnecessary	Completely Unnecessary	
a. All the time you spend at work in the Army	--	2	3	4	5	6	7	15/
b. All the PCS moves you have made	--	2	3	4	5	6	7	16/
c. All the separations from your spouse because of your military duties ...	1	2	3	4	5	6	7	17/

28. How strongly do you AGREE or DISAGREE with each of the following statements?

(Circle One Number On Each Line)

		Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	
a.	I talk up the Army to my friends as a great place to be associated with	1	2	3	4	5	*18/*
b.	I find that my values and the Army's values are very similar	1	2	3	4	5	*19/*
c.	There is not much to be gained for me by sticking with the Army indefinitely	1	2	3	4	5	*20/*
d.	The Army is the best of all places for me to work	1	2	3	4	5	*21/*

29. Compare your career in the Army with a career you could <u>realistically</u> have in civilian life for the following:

(Circle One Number On Each Line)

		Does Not Apply	Army Much Better	Army Somewhat Better	No Difference	Civilian Life Somewhat Better	Civilian Life Much Better	
a.	Your family's (spouse/ children) overall satisfaction	1	2	3	4	5	6	*22/*
b.	Your job security	- -	2	3	4	5	6	*23/*
c.	Your pay	- -	2	3	4	5	6	*24/*
d.	Your retirement benefits	- -	2	3	4	5	6	*25/*
e.	Your other benefits ...	- -	2	3	4	5	6	*26/*
f.	Chance to use your abilities	- -	2	3	4	5	6	*27/*

30. When you finally leave the Armed Forces, how many total years of active duty do you expect to have served? (DO NOT count time in reserves.)

Write in # of Years: ☐☐ 28-29/

30A. What is your current pay grade?

Write in Grade: ☐☐ 30-31/

31. What are your chances of being promoted to the next pay grade? (If you are on a promotion list, consider the grade above the next promotion.)

	(Circle One)	
Does not apply- - I plan to retire	01	32-33/
Does not apply- - I plan to leave the Army	02	34-35/
Does not apply- - I am at the top of the promotion scale	03	36-37/
No chance	04	38-39/
Very slight possibility	05	40-41/
Slight possibility	06	42-43/
50/50 chance	07	44-45/
Good possibility	08	46-47/
Very good possibility	09	48-49/
Absolutely certain	10	50-51/

Continue on Next Page - - - - ->

CARD 03

SECTION 4. YOUR USE OF PROGRAMS AND SERVICES

This section is about YOUR OWN use of Army and civilian programs and services.

4A. Your Use of Financial Counseling or Assistance

32. The Army offers classes in financial management. Have you <u>ever</u> attended such a class?

(Circle One)

Yes	1	52/
No	2	
Didn't know about such classes	3	

33. In the <u>past 6 months</u>, did you need financial counseling or assistance?

(Circle One)

Yes	1	53/
No	2	

34. In the <u>past 6 months</u>, did YOU use any of the following Army services for <u>financial</u> counseling or assistance? If YES, how many times did you use the service?

	Did You Use? No	Did You Use? Yes	IF YES, Write in # of Times	
a. Army Community Services (ACS)	1	2 - - >	☐☐ # of times	54-56/
b. Army Chaplain	1	2 - - >	☐☐ # of times	57-59/
c. Army Emergency Relief (AER)	1	2 - - >	☐☐ # of times	60-62/
d. Red Cross	1	2 - - >	☐☐ # of times	63-65/

35. **If you used Army Community Services (ACS) or Army Emergency Relief (AER) for financial counseling or assistance in the <u>past 6 months</u>, did Army leadership direct you to go?**

(Circle One)

Does not apply - - I didn't use 1 *66/*

Yes 2
No 3

35A. Please rate the service you received from ACS or AER:

(Circle One)

Does not apply - - I didn't use 1 *67/*

Excellent 2
Very good 3
Good 4
Fair 5
Poor 6

36. **In the <u>past 6 months</u>, how much emergency financial assistance (loans or other funds) did you receive from the following? (If none, write in "0.")**

CARD 04 *9-10/*

(Write in U.S. Dollar Amount) *1-8/*

a. Army Emergency Relief (AER)..... $ _____ .00 *11-15/*

b. Red Cross..... $ _____ .00 *16-20/*

c. Civilian Services..... $ _____ .00 *21-25/*

d. Relatives or friends..... $ _____ .00 *26-30/*

4B. Your Use of Counseling Services

37. Did YOU experience any of the following in the past 6 months?

(Circle One Number on Each Line)

	Does Not Apply	Yes	No	
a. Job-related problem	--	2	3	31/
b. Emotional or nervous problem	--	2	3	32/
c. Drug/alcohol-related problem	--	2	3	33/
d. Stress-related problem	--	2	3	34/
e. Marital difficulty	1	2	3	35/
f. Parenting difficulty	1	2	3	36/
g. Family violence	--	2	3	37/

38. In the past 6 months, did YOU use the following ARMY services for help with any of the above problems or for any other personal reasons? If YES, how many times did you use the service?

	Did You Use? No	Yes	IF YES, Write in # of Times	
a. Army Drug and Alcohol Counseling Center	1	2 -->	☐☐ # of times	38-40/
b. Army Family Life Center	1	2 -->	☐☐ # of times	41-43/
c. Army Chaplain	1	2 -->	☐☐ # of times	44-46/
d. Army hospital social workers or mental health unit	1	2 -->	☐☐ # of times	47-49/
e. Army Community Services (ACS)	1	2 -->	☐☐ # of times	50-52/
f. Red Cross	1	2 -->	☐☐ # of times	53-55/

(If you did not use any of these, circle this number ----------> 1 56/
and GO TO PAGE 16.)

39. Which Army service did you MOST RECENTLY use in the past 6 months?

(Circle One)

Army Drug and Alcohol Counseling Center	1	57/
Army Family Life Center	2	
Army Chaplain	3	
Army hospital social workers or mental health unit	4	
Army Community Services (ACS)	5	
Red Cross	6	

39A. What was the main reason you used the service you marked in Question 39 above?

(Circle One)

Job-related problem	1	58/
Emotional or nervous problem	2	
Drug/alcohol-related problem	3	
Stress-related problem	4	
Marital difficulty	5	
Parenting difficulty	6	
Family violence	7	
Other	8	

What?_____

39B. Please rate the service you received:

(Circle One)

Excellent	1	59/
Very Good	2	
Good	3	
Fair	4	
Poor	5	

40. If you did NOT use any Army counseling services in the past 6 months, why not?

(Circle All That Apply)

Does not apply - - I did use Army services	01	60-61/
I was not sure service I needed was available	02	62-63/
The service I needed was not available	03	64-65/
I was referred by the Army to a civilian service	04	66-67/
I had concerns about confidentiality/spouse's Army career	05	68-69/
The location or hours were inconvenient	06	70-71/
I had concerns about quality of care	07	72-73/
I wanted to handle problem on my own	08	74-75/
I did not need the service	09	76-77/
Other	10	78-79/

What? _____

CARD 05 9-10/

1-8/

41. In the past 6 months, how many times did you go to CIVILIAN services for help with emotional, stress, job, family, or drug/alcohol-related problems or for any other personal reasons? (If none, write in "0.")

Write in # of Times: ☐☐ 11-12/

41A. What was the main reason for your MOST RECENT use of a civilian service in the past 6 months?

(Circle One)

Does not apply - - I did not use	1	13/
Job-related problem	2	
Emotional or nervous problem	3	
Drug/alcohol-related problem	4	
Stress-related problem	5	
Marital difficulty	6	
Parenting difficulty	7	
Family violence	8	
Other	9	

What? _____

4C. Your Use of Health Care Facilities

These questions are about YOUR OWN use of health care facilities.

42. In the past 6 months, did you PERSONALLY use the following ARMY health care services? If YES, how many times did you use the service?

	Did You Use? No	Did You Use? Yes	IF YES, Write in # of Times	
a. Visit(s) to an Army emergency room	1	2 ->	# of times	14-16/
b. Visit(s) to an Army medical doctor's office or clinic for a physical problem	1	2 ->	# of times	17-19/
c. Visit(s) to an Army medical doctor's office or clinic for preventive or prenatal care (routine exam, immunization)	1	2 ->	# of times	20-22/
d. Visit(s) to an Army medical doctor's office or clinic for a personal or emotional problem	1	2 ->	# of times	23-25/
e. Visit(s) to an Army social worker or mental health professional (psychologist, psychiatrist)	1	2 ->	# of times	26-28/
f. Overnight Army hospital stay(s) for a personal or emotional problem	1	2 ->	# of times	29-31/
g. Overnight Army hospital stay(s) for physical health problems or maternity care	1	2 ->	# of times	32-34/
h. Visit(s) to an Army dental clinic	1	2 ->	# of times	35-37/

43. In terms of your satisfaction with Army health care services you personally have received in the past 6 months, please rate the following. (Do not include dental care.)

(If you have not used Army health care services in the past 6 months, circle this number ----------> 1 and GO TO NEXT PAGE.) *38/*

(Circle One Number on Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. The convenience of the location	1	2	3	4	5	*39/*
b. The time it took to get an appointment scheduled	1	2	3	4	5	*40/*
c. The time you waited for the appointment after scheduling it	1	2	3	4	5	*41/*
d. The time you waited in the office or waiting room	1	2	3	4	5	*42/*
e. The technical skills (thoroughness, carefulness, competence) of your doctor(s) and other health care personnel	1	2	3	4	5	*43/*
f. The personal manner (courtesy, respect, sensitivity, friendliness) of your doctor(s) and other health care personnel	1	2	3	4	5	*44/*
g. The overall quality of Army health care services	1	2	3	4	5	*45/*

Continue on Next Page - - - - ->

44. In the past 6 months, did you PERSONALLY use the following CIVILIAN health care services? If YES, how many times did you use the services?

(If you have not used civilian health care services in the past 6 months, circle this number ----------> 1 and GO TO NEXT PAGE.) 46/

	Did You Use? No	Did You Use? Yes	IF YES, Write in # of Times	
a. Visit(s) to a civilian emergency room	1	2 -->	# of times	47-49/
b. Visit(s) to a civilian medical doctor's office or clinic for a physical problem	1	2 -->	# of times	50-52/
c. Visit(s) to a civilian medical doctor's office or clinic for preventive or prenatal care (routine exam, immunization)	1	2 -->	# of times	53-55/
d. Visit(s) to a civilian medical doctor's office or clinic for a personal or emotional problem	1	2 -->	# of times	56-58/
e. Visit(s) to a civilian social worker or mental health professional (psychologist, psychiatrist)	1	2 -->	# of times	59-61/
f. Overnight civilian hospital stay(s) for a personal or emotional problem	1	2 -->	# of times	62-64/
g. Overnight civilian hospital stay(s) for physical health problems or maternity care	1	2 -->	# of times	65-67/
h. Visit(s) to a civilian dental clinic	1	2 -->	# of times	68-70/

CARD 06 9-10/

1-8/

44A. Did the Army pay for any of these civilian health care expenses?

(Circle One)

Yes, the Army paid for all of them 1 11/

Yes, the Army paid for some of them 2

No, the Army paid for none of them 3

4D. Your Use of Other Programs and Services

45. In the <u>past 6 months</u>, did you PERSONALLY use the following Army-sponsored services or activities? If YES, how many times did you use the service?

	Did You Use? No	Did You Use? Yes	IF YES, Write in # of Times	
a. Library	1	2 -->	☐☐ # of times	12-14/
b. Arts and Crafts (for example, photography, painting, ceramics)	1	2 -->	☐☐ # of times	15-17/
c. Auto crafts	1	2 -->	☐☐ # of times	18-20/
d. Music and theater	1	2 -->	☐☐ # of times	21-23/
e. Recreation center	1	2 -->	☐☐ # of times	24-26/
f. Indoor athletics (gymnasium)	1	2 -->	☐☐ # of times	27-29/
g. Bowling	1	2 -->	☐☐ # of times	30-32/
h. Outdoor recreation (for example, camping, hiking, horseback riding)	1	2 -->	☐☐ # of times	33-35/
i. Outdoor athletics (for example, baseball, golf, swimming)	1	2 -->	☐☐ # of times	36-38/
j. Clubs	1	2 -->	☐☐ # of times	39-41/

SECTION 5. YOU AND YOUR WELL BEING

Next are some questions about your background and how things have been for you lately.

46. Are you:

(Circle One)

Male 1
Female 2

42/

47. How old were you on your last birthday?

Write in Your Age: ☐☐ 43-44/

48. Are you currently:

(Circle One)

Married for the first time 1
Remarried 2

} Continue with QUESTION 49

45/

Widowed 3
Divorced 4
Legally separated 5
Single, never married 6

} GO TO NEXT PAGE - - - - - ->

49. How long have you been married to your current spouse? (If less than 1 year, write in "0.")

Write in # of Years: ☐☐ 46-47/

49A. Are you currently on an accompanied (command-sponsored) tour?

(Circle One)

Yes 1
No 2

48/

50. What is the highest grade or year of regular school or college that you have completed?

(Circle One)

Eighth grade or less	1	49/
Some high school, but no diploma/equivalency	2	
High school diploma/equivalency	3	
Some college, but no bachelor's degree	4	
Bachelor's degree (BA, BS)	5	
Some graduate school, but no degree	6	
Post-graduate degree (MA, PhD, LLD, MD)	7	

51. How long does it usually take you to commute from your residence to your job station?

Write in # of Minutes: ☐☐ 50-51/

52. Do you drive a car at this location?

(Circle One)

Yes	1	52/
No	2	

53. How much was your telephone bill last month? (Please round to the nearest dollar.)

Write in Dollars: $ ☐☐☐.00 53-55/
U.S. Dollars

If you don't have a telephone, circle this number - - - - - -> 1 56/

54. How adequate is your household income in meeting your needs? (Consider total income from all sources, including your spouse's income if she/he works.)

(Circle One)

Completely adequate	1	57/
Adequate	2	
Somewhat adequate	3	
Somewhat inadequate	4	
Inadequate	5	
Completely inadequate	6	

55. Please write in the amount <u>before taxes</u> you received from the following in <u>1986</u>:

Source	1986 Income in U.S. Dollars	
a. BAQ, VHA, or Rent Plus	$ _____.00	58-62/
b. Your 1986 earnings from a <u>civilian</u> job(s)	$ _____.00	63-67/
c. Your <u>spouse's 1986 earnings</u> from wages or salary	$ _____.00	68-72/
d. <u>Other income</u> received in 1986 (for example, government benefits, money from relatives, interest, dividends, child support, AER, Red Cross)	$ _____.00	73-77/

56. People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you when needed?

CARD 07 9-10/

1-8/

(Circle One Number on Each Line)

	None of the Time	A Little of the Time	Some of the Time	Most of the Time	All of the Time	
a. Someone you can count on to listen to you when you need to talk.....	1	2	3	4	5	11/
b. Someone who shows you love and affection.....	1	2	3	4	5	12/
c. Someone to do something enjoyable with	1	2	3	4	5	13/
d. Someone to help with daily chores if you were sick.....	1	2	3	4	5	14/
e. Someone to loan you money.....	1	2	3	4	5	15/

57. For each of the following, please circle the number for the one answer that comes closest to the way you have been feeling during the past month.

(Circle One Number on Each Line)

	None of the Time	A Little of the Time	Some of the Time	A Good Bit of the Time	Most of the Time	All of the Time	
a. How much of the time, during the past month, have you been a very nervous person?.....	1	2	3	4	5	6	16/
b. During the past month, how much of the time have you felt calm and peaceful?.....	1	2	3	4	5	6	17/
c. How much of the time, during the past month, have you felt downhearted and blue?.....	1	2	3	4	5	6	18/
d. During the past month, how much of the time have you been a happy person?.....	1	2	3	4	5	6	19/
e. How much of the time, during the past month, have you felt so down in the dumps that nothing could cheer you up?.....	1	2	3	4	5	6	20/

58. Have you had 2 YEARS or more in your life when you felt depressed or sad most days, even if you felt OK sometimes?

(Circle One)

Yes ..... 1 ---> Continue with QUESTION 58A 21/

No ..... 2 ---> GO TO QUESTION 59

58A. Have you felt depressed or sad much of the time in the past YEAR?

(Circle One)

Yes 1 22/

No 2

59. In the past year, have you had 2 WEEKS or more in which you felt sad or depressed or when you lost all interest or pleasure in things that you usually cared about or enjoyed?

(Circle One)

Yes 1 23/

No 2

60. Are you currently?

(Circle One)

Single, with no dependent children..... 1 - - -> GO TO PAGE 37 - - - - ->

Single, with dependent children..... 2 } - - -> Continue with QUESTION 61

Married..... 3 }

24/

61. This question is about the members of your FAMILY, including your spouse, your children and anyone else who is financially dependent on you and/or your spouse.

Please write the age of each family member who lives with you NOW. Then write the age of each family member who is NOT living with you now. (For family members less than 1 year old, write in "0.")

AGES OF FAMILY MEMBERS LIVING WITH YOU NOW:		
Spouse:	[ ][ ]	25-26/
Child:	[ ][ ]	27-28/
Child:	[ ][ ]	29-30/
Child:	[ ][ ]	31-32/
Child:	[ ][ ]	33-34/
Child:	[ ][ ]	35-36/
Other:	[ ][ ]	37-38/
Other:	[ ][ ]	39-40/
TOTAL LIVING WITH YOU NOW:	[ ][ ]	41-42/

AGES OF FAMILY MEMBERS NOT LIVING WITH YOU NOW:		
Spouse:	[ ][ ]	43-44/
Child:	[ ][ ]	45-46/
Child:	[ ][ ]	47-48/
Child:	[ ][ ]	49-50/
Child:	[ ][ ]	51-52/
Child:	[ ][ ]	53-54/
Other:	[ ][ ]	55-56/
Other:	[ ][ ]	57-58/
TOTAL NOT LIVING WITH YOU NOW;	[ ][ ]	59-60/

CARD 07

62. Who usually does these jobs in your household when you and your spouse are at the same location?

(If you do not have a spouse, circle this number ----------> 1 and GO TO QUESTION 63.) 61/

(Circle One Number On Each Line)

	Does Not Apply	You Only	You Mostly	You & Spouse Equally	Spouse Mostly	Spouse Only	
a. Caring for child(ren) on a daily basis (for example, supervision or discipline)	1	2	3	4	5	6	62/
b. Handling bills	–	2	3	4	5	6	63/
c. Making family decisions	–	2	3	4	5	6	64/
d. Planning and taking care of PCS moves ...	–	2	3	4	5	6	65/
e. Doing the housework (for example, cooking, cleaning, shopping). ...	–	2	3	4	5	6	66/
f. Planning, taking care of family recreational activities	–	2	3	4	5	6	67/

63. Add up all the time in the past year that you were physically separated from your spouse or children because of your military duties (including TDY's, deployments and unaccompanied tours). How many total months would that be?

(Circle One)

None	1	68/
Less than one month	2	
1 - 2 months	3	
3 - 4 months	4	
5 - 6 months	5	
7 - 8 months	6	
9 months or more	7	

63A. How many times in the past year were you separated from your spouse or children because of military duties for more than 2 weeks at a time?

Write in # of Times: ☐☐ 69-70/

CARD 08 9-10/
1-8/

64. If a military conflict separated you from your family for 6 months or more, how sure are you that your SPOUSE could take full responsibility for the following?

(If you do NOT have a spouse, circle this number ----------> 1 11/
and GO TO QUESTION 65.)

(Circle One Number on Each Line)

	Does Not Apply	Completely Sure	Very Sure	Somewhat Sure	Somewhat Unsure	Very Unsure	Completely Unsure	
a. Child care	1	2	3	4	5	6	7	12/
b. Family member's health	–	2	3	4	5	6	7	13/
c. Family finances	–	2	3	4	5	6	7	14/
d. Housing	–	2	3	4	5	6	7	15/
e. Emotional or parenting matters ...	–	2	3	4	5	6	7	16/
f. Evacuation of family members	–	2	3	4	5	6	7	17/

65. If this military conflict separated you from your family for <u>6 months or more</u>, how sure are you that the ARMY would help your family with the following should the need arise?

(Circle One Number on Each Line)

	Does Not Apply	Completely Sure	Very Sure	Somewhat Sure	Somewhat Unsure	Very Unsure	Completely Unsure	
a. Child care	1	2	3	4	5	6	7	18/
b. Family member's health	–	2	3	4	5	6	7	19/
c. Family finances	–	2	3	4	5	6	7	20/
d. Recreation and leisure activities	–	2	3	4	5	6	7	21/
e. Housing	–	2	3	4	5	6	7	22/
f. Emotional or parenting matters ...	–	2	3	4	5	6	7	23/
g. Evacuation of family members	–	2	3	4	5	6	7	24/

66. If you had to be separated from your child(ren) for 6 months or more because of a military conflict, who would care for them?

(If you have no children under 18 living with you, circle this number - - - - - > 1 and GO TO NEXT PAGE, QUESTION 68.) 25/

(Circle One)

Spouse	1	26/
Immediate family member (for example, grandparents, brother or sister)	2	
Other family member	3	
Friend or neighbor	4	
Public agency	5	
Other person(s)	6	

Who? _____

66A. How sure are you that the person you circled in Question 66 above would adequately take care of your child(ren) in your absence?

(Circle One)

Completely sure	1	27/
Very sure	2	
Somewhat sure	3	
Somewhat unsure	4	
Very unsure	5	
Completely unsure	6	

67. How often have you been able to do the following during the past 6 months?

(Circle One Number On Each Line)

	None of the Time	A Little of the Time	Some of the Time	Most of the Time	All of the Time	
a. I spent enough time with my child(ren).....	1	2	3	4	5	28/
b. I talked and listened to my child(ren).....	1	2	3	4	5	29/
c. I met my child(ren)'s emotional needs.....	1	2	3	4	5	30/
d. The quality of the time I spent with my child(ren) was good.....	1	2	3	4	5	31/

68. The following statements are about your relationship with your spouse. How TRUE or FALSE has each one been for you during the past 6 months?

(If you do not have a spouse, circle this number ----------> 1 and GO TO NEXT PAGE.) 32/

(Circle One Number On Each Line)

	Definitely True	Mostly True	Don't Know	Mostly False	Definitely False	
a. We said anything we wanted to say to each other	1	2	3	4	5	33/
b. We often had trouble sharing our personal feelings	1	2	3	4	5	34/
c. My spouse was supportive of me	1	2	3	4	5	35/
d. We tended to rely on other people for help rather than on each other	1	2	3	4	5	36/

SECTION 7. PROGRAMS AND SERVICES FOR YOUR CHILD(REN)

69. Are you a single parent with children under 20 who live with you now?

(Circle One)

Yes..... 1 ---> Continue on NEXT PAGE

No..... 2 ---> GO TO PAGE 37 - - - - - >

37/

NOTE TO MARRIED MILITARY MEMBERS WITH CHILDREN:

To reduce the length of the questionnaire, we have asked your spouse to answer the questions in this section about your child(ren). However, if you also want to answer these questions, please feel free to do so. Otherwise, skip to page 37.

BLANK 38-80/

CARD 09 9-10/

1-8/

70. How many children 5 years old or younger do you have who live with you now?

(Circle One)

None in this age range ..... 1 ---> **GO TO PAGE 33** ----------> 11/

One or more in this age range ..... 2 ---> **Continue with QUESTION 71**

71. Please answer the following questions about your use of Army and civilian childcare arrangements for your child(ren) 5 years old or younger.

(If you have more than one child 5 years old or younger, please answer for the YOUNGEST and OLDEST children in the 0 to 5 age range.)

	YOUNGEST OR ONLY CHILD 0 TO 5 YEARS OLD		OLDEST CHILD 0 TO 5 YEARS OLD		
A. How old is this child? (If less than 1 year, enter "0.")	☐☐ Years Old	12/	☐☐ Years Old		40/
B. Do you use these childcare arrangements? IF YES, how many hours in a usual week?	Do You Use? No / Yes	IF YES: Write in Hours Per Week	Do You Use? No / Yes	IF YES: Write in Hours Per Week	
Army Child Development Center (full, part day or hourly care)	1 / 2 -->	☐☐ hours per week 13-15/	1 / 2 -->	☐☐ hours per week	41-43/
Army Family Daycare	1 / 2 -->	☐☐ hours per week 16-18/	1 / 2 -->	☐☐ hours per week	44-46/
Civilian daycare, preschool or kindergarten	1 / 2 -->	☐☐ hours per week 19-21/	1 / 2 -->	☐☐ hours per week	47-49/
Private babysitting	1 / 2 -->	☐☐ hours per week 22-24/	1 / 2 -->	☐☐ hours per week	50-52/
Spouse	1 / 2 -->	☐☐ hours per week 25-27/	1 / 2 -->	☐☐ hours per week	53-55/
Friend, neighbor or relative	1 / 2 -->	☐☐ hours per week 28-30/	1 / 2 -->	☐☐ hours per week	56-58/
Older brother or sister	1 / 2 -->	☐☐ hours per week 31-33/	1 / 2 -->	☐☐ hours per week	59-61/
Child takes care of self at home	1 / 2 -->	☐☐ hours per week 34-36/	1 / 2 -->	☐☐ hours per week	62-64/
C. How much do you pay per week for the childcare arrangements you circled? (If none, write in "0.")	$ ☐☐☐ .00 dollars/per week	37-39/	$ ☐☐☐ .00 dollars/per week		65-67/

72. Please rate the ARMY childcare services you usually use for your child(ren) 5 years old or younger:

(If you do NOT currently use Army childcare services, circle this number ----------> 1 and GO TO QUESTION 73.) 68/

(Circle One Number on Each Line)

		Excellent	Very Good	Good	Fair	Poor	
a.	Ability to enroll child(ren) right away	1	2	3	4	5	69/
b.	Availability for drop-in	1	2	3	4	5	70/
c.	Convenience of hours	1	2	3	4	5	71/
d.	Convenience of location	1	2	3	4	5	72/
e.	Quality of care or supervision	1	2	3	4	5	73/
f.	Cost	1	2	3	4	5	74/

CARD 10 9-10/ 1-8/

73. Why do you use CIVILIAN childcare services instead of ARMY childcare services for your child(ren) 5 years old or younger?

(Circle All That Apply)

Does not apply - - I only use Army programs or services	1	11/
Does not apply - - I do not need childcare	2	12/
Waiting to get into Army program	3	13/
Army program we need is not available	4	14/
Convenience of location of civilian service	5	15/
Convenience of hours of civilian service	6	16/
Quality of care of civilian service	7	17/
Cost of civilian service	8	18/
Other	9	19/

What? _____

74. All things considered, how would you rate your childcare arrangement(s) for your child(ren) 5 years old or younger?

(Circle One)

Excellent	1	20/
Very good	2	
Good	3	
Fair	4	
Poor	5	

BLANK 21-80/

CARD 11 9-10/

75. How many school-aged children between 6 and 12 years old do you have who live with you now?

(Circle One)

None in this age range ..... 1 ---> GO TO PAGE 35 ----------> 11/

One or more in this age range ..... 2 ---> Continue with QUESTION 76

76. Please answer the following questions about your use of Army and civilian childcare arrangements for your child(ren) between 6 and 12 years old.

(If you have more than one child between 6 and 12, please answer for the YOUNGEST and OLDEST children in the 6 to 12 age range.)

	YOUNGEST OR ONLY CHILD 6 TO 12 YEARS OLD		OLDEST CHILD 6 TO 12 YEARS OLD	
A. How old is this child?	☐☐ Years Old	12-13/	☐☐ Years Old	44-45/
B. Do you use these childcare arrangements? IF YES, how many hours in a usual week?	Do You Use? No / Yes; IF YES: Write in Hours Per Week		Do You Use? No / Yes; IF YES: Write in Hours Per Week	
Army Child Development program	1 2---> ☐☐ hours per week	14-16/	1 2---> ☐☐ hours per week	46-48/
Army Family Daycare	1 2---> ☐☐ hours per week	17-19/	1 2---> ☐☐ hours per week	49-51/
On-post youth activity	1 2---> ☐☐ hours per week	20-22/	1 2---> ☐☐ hours per week	52-54/
Civilian after school program or youth activity	1 2---> ☐☐ hours per week	23-25/	1 2---> ☐☐ hours per week	55-57/
Private babysitting	1 2---> ☐☐ hours per week	26-28/	1 2---> ☐☐ hours per week	58-60/
Spouse	1 2---> ☐☐ hours per week	29-31/	1 2---> ☐☐ hours per week	61-63/
Friend, neighbor or relative	1 2---> ☐☐ hours per week	32-34/	1 2---> ☐☐ hours per week	64-66/
Older brother or sister	1 2---> ☐☐ hours per week	35-37/	1 2---> ☐☐ hours per week	67-69/
Child takes care of self at home	1 2---> ☐☐ hours per week	38-40/	1 2---> ☐☐ hours per week	70-72/
C. How much do you pay per week for the childcare arrangements you circled? (If none, write in "0.")	$ ☐☐☐ .00 dollars/per week	41-43/	$ ☐☐☐ .00 dollars/per week	73-75/

CARD 12 9-10/
1-8/

77. Please rate the ARMY childcare services you usually use for your school-aged child between 6 and 12 years old:

(If you do NOT currently use Army childcare services, circle this number ----------> 1 and GO TO QUESTION 78.) 11/

(Circle One Number on Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. Ability to enroll child(ren) right away.....	1	2	3	4	5	12/
b. Availability for drop-in.....	1	2	3	4	5	13/
c. Convenience of hours.....	1	2	3	4	5	14/
d. Convenience of location.....	1	2	3	4	5	15/
e. Quality of care or supervision.....	1	2	3	4	5	16/
f. Cost.....	1	2	3	4	5	17/

78. Why do you use CIVILIAN childcare services instead of ARMY childcare services for your school-aged child(ren) between 6 and 12 years old?

(Circle All That Apply)

Does not apply - - I only use Army programs or services	1	18/
Does not apply - - I do not need childcare	2	19/
Waiting to get into Army program	3	20/
Army program we need is not available	4	21/
Convenience of location of civilian service	5	22/
Convenience of hours of civilian service	6	23/
Quality of care of civilian service	7	24/
Cost of civilian service	8	25/
Other	9	26/

What? _____

79. All things considered, how would you rate your childcare arrangement(s) for your school-aged child(ren) between 6 and 12 years old?

(Circle One)

Excellent	1	27/
Very good	2	
Good	3	
Fair	4	
Poor	5	

80. Did any of your children between 6 and 19 years old participate in Army Youth Activities in the past 6 months?

(Circle One)

Yes	1	--->	Continue with QUESTION 81
No	2	--->	GO TO QUESTION 83, NEXT PAGE ---->
Does not apply - - I have no children in this age range	3	--->	GO TO PAGE 37 ---------->

28/

81. Please answer the following questions about the participation of your child(ren) between 6 and 19 years old in Army Youth Activities.

(If more than one child participated, answer for your YOUNGEST and the OLDEST children in the 6 to 19 age range.)

	YOUNGEST OR ONLY CHILD 6 TO 19 YEARS OLD	OLDEST CHILD 6 TO 19 YEARS OLD
A. How old is this child?	☐☐ years old 29-30/	☐☐ years old 41-42/
B. Is the child:		
Male	1 31/	1 43/
Female	2	2
C. In the past 6 months, how many times did the child take part in Army Youth Activities? (If none, write in "0.")	☐☐☐ # of times 32-34/	☐☐☐ # of times 44-46/
D. In the past 6 months, in which Army Youth Activities did the child participate?	(Circle All That Apply)	
Sports, like baseball or soccer	1 35-40/	1 47-52/
After school programs other than sports, like clubs, band, scouts, drama	2	2
Social activities, like dances, outings	3	3
Classes of instruction, like ballet, judo, crafts, swimming	4	4
Informal after school activities, like video games, place to do homework	5	5
Other	6	6
What?_____		

82. Please rate the Army Youth Activities your child(ren) between 6 and 19 years old used on the following:

(Circle One Number on Each Line)

	Excellent	Very Good	Good	Fair	Poor	
a. Convenience of location	1	2	3	4	5	53/
b. Quality of supervision	1	2	3	4	5	54/
c. Quality of activities	1	2	3	4	5	55/
d. Convenience of hours	1	2	3	4	5	56/
e. Cost	1	2	3	4	5	57/

83. If one or more of your children between 6 and 19 years old did NOT participate in Army Youth Activities, why not?

(Circle All That Apply)

Does not apply -- they all participated	01	58-59/
Child(ren) not interested	02	60-61/
Did not know about activities	03	62-63/
Activities child(ren) wanted were not available	04	64-65/
Location of activities	05	66-67/
Transportation to and from activities	06	68-69/
Quality of supervision	07	70-71/
Quality of activities	08	72-73/
Cost	09	74-75/
Child(ren) preferred civilian activities	10	76-77/
Other	11	78-79/

What? _____

CARD 13 9-10/
1-8/

84. Because there was not enough room to cover all Army programs and services, we may have left out some that are important to you. Use the space below to comment on Army programs and services you and your family have used or would like to have available. (We will read all your comments.)

11/

85. Not counting interruptions, how many minutes did it take you to complete the questionnaire?

Write in # of Minutes: ☐☐ 12-13/

86. Would you like a copy of the study's results? The report will be ready in the Fall of 1988.

(Circle One)

Yes 1 14/
No 2

THIS COMPLETES THE QUESTIONNAIRE. THANK YOU FOR YOUR HELP IN THIS IMPORTANT STUDY. WE APPRECIATE YOUR TIME AND EFFORT.

Please remember to mail your questionnaire to RAND in the postage paid return envelope.

THE RAND CORPORATION
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Santa Monica, CA 90406-2138
(213) 393-0411

Appendix B

UNIVERSE OF INSTALLATIONS AND SAMPLING CHARACTERISTICS OF SURVEY

Table B.1

GEOGRAPHIC CHARACTERISTICS OF U.S. INSTALLATIONS BY SIZE: FISCAL YEAR 1986

Installation	Mission	Number of Soldiers	Number of Civilians	Miles to Nearest Metropolitan Area (m = miles)	Size of Metropolitan Area
		15,000 or more			
Fort Bragg, NC	Air	45,690	5,586	9 m NW of Fayetteville	251,000
Fort Hood, TX	Air/Arms	38,888	5,932	60 m SW of Waco	182,000
Fort Lewis, WA	Infantry	24,906	4,306	15 m SE of Tacoma	516,400
Fort Campbell, KY	Air	22,876	3,218	42 m NW of Nashville	890,000
Fort Sill, OK	Infantry	22,428	3,433	3 m N of Lawton	119,000
Fort Bliss, TX	Air	20,447	4,723	Adj. to El Paso	526,000
Fort Carson, CO	Infantry	18,812	2,558	Adj. to Colorado Springs	349,000
Fort Knox, KY	Training	18,634	4,635	31 m S of Louisville	963,000
Fort Jackson, SC	Training	17,550	2,227	Near Columbia	433,000
Fort Ord, CA	Infantry	16,450	2,530	Salinas-Seaside-Monterey	319,000
Fort Riley, KS	Inf/Mech	16,397	2,543	60 m W of Topeka	159,000
Fort Leonard Wood, MO	Eng/Trng	15,000	2,200	28 m SE of Columbia	106,000
		5,000–14,999			
Fort Benning, GA	Infantry	14,466	4,655	8 m S of Columbus	244,000
Fort Stewart, GA	Infantry	13,699	2,186	40 m NW of Savannah	233,000
Schofield Barricks, HI	Infantry	12,499	959	17 m NW of Honolulu	805,000
Fort Polk, LA	Inf/Mech	12,328	2,302	45 m SW of Alexandria	139,000
Fort Dix, NJ	Training	12,203	2,221	17 m SE of Trenton	314,000
Fort McClellan, AL	Mil Pol Trng	11,098	1,715	5 m N of Anniston	126,000
Fort Sam Houston, TX	Health	9,936	5,934	In San Antonio	1,189,000
Fort Eustis, VA	Training	8,071	3,026	12 m SE of Norfolk	1,261,000
Fort Meade, MD	HQ/Adm Reserve	7,637	18,469	15 m NW of DC	3,429,000
Fort Gordon, GA	Training	7,422	3,584	12 m SW of Augusta	368,000
Fort Devens, MA	Intell Trng	6,405	1,832	25 m NW of Boston	2,821,000
West Point Military Res., NY	Training	6,339	2,231	50 m N of NY City	8,377,000
Aberdeen Proving Ground, MD	Chem R&D	5,484	8,468	35 m NE of Baltimore	2,245,000
Fort Huachuca, AZ	Cmd Intell	5,165	4,149	60 m SE of Tucson	595,000
Fort Lee, VA	Logistics	5,046	3,618	20 m S of Richmond	796,000

Table B.1—continued

Installation	Mission	Number of Soldiers	Number of Civilians	Miles to Nearest Metropolitan Area (m = miles)	Size of Metropolitan Area
		1,000–4,999			
Fort Leavenworth, KS	Cmd/Staff Sch	4,939	1,665	35 m NE of Kansas City	1,477,000
Fort Belvoir, VA	R&D	4,849	4,854	20 m SW of DC	3,429,000
Fort Rucker, AL	Aviatn Center	4,790	3,268	20 m S of Dothan	124,000
Fort Benjamin Harrison, IN	Pers/Res Mgmt	4,596	1,009	13 m NE of Indianapolis	1,195,000
Fort Richardson, AK	Infantry	4,582	2,467	Adj. to Anchorage	227,000
Walter Reed Army Med Center, DC	Med Center	4,122	3,608	In DC	3,429,000
Redstone Arsenal, AL	Missile	3,802	10,288	In Huntsville	210,000
Hunter Army Air Field, GA	Infantry Trng	3,533	490	In Savannah	233,000
Fort Irwin, CA	Training	3,398	487	60 m NE of Lancaster	381,000
Presidio of San Francisco, CA	Med Center	2,975	2,932	In San Francisco	1,542,000
Fitzsimmons Army Med Center, CO	Health Care	2,835	2,397	6 m E of Denver	1,583,000
Presidio of Monterey, CA	Language Inst	2,777	1,101	Salinas-Seaside-Monterey	319,000
Fort Wainwright, AK	Infantry	2,677	535	256 m NE of Anchorage	227,000
Fort Monmouth, NJ	Communications	2,600	8,501	50 m S of New York City	8,377,000
Fort McPherson, GA	FORSCOM HQ	2,496	3,933	4 m W of Atlanta	2,380,000
Fort Sheridan, IL	Enl Proc Cmd	2,285	2,435	28 m N of Chicago	6,128,000
Fort Myer, VA	Infantry	2,009	316	Near DC	3,429,000
Fort Story, VA	Artillery	1,535	120	16 m E of Norfolk	1,261,000
Tripler Army Med Center, HI	Med Center	1,390	995	5 m NW of Honolulu	805,000
Camp Buellis, TX	Res Comp Trng	1,388	86	In San Antonio	1,189,000
Fort Ritchie, MD	Communications	1,276	1,098	13 m NE of Hagerstown	112,000
White Sands Missile Range, NM	Missile	1,220	4,317	40 m W of El Paso, TX	526,000
Fort Drum, NY	Infantry	1,149	944	60 m NW of Utica-Rome	321,000
Fort Monroe, VA	Training	1,143	1,845	10 m SE of Norfolk	1,261,000
Arlington Hall Station, VA	Security	1,083	1,660	8 m SW of DC	3,429,000
Fort McNair, DC	Def University	1,052	417	In SE DC	3,429,000
Fort Shafter, HI	Support	1,000	1,941	Near Honolulu	805,000

SOURCES: *Army*, October 1985, pp. 358–363, and Department of Defense, *Army Base Structure, FY 1986*, for location, military/civilian populations, and primary mission; "National Data Book and Guide to Sources," *Statistical Abstract of the United States (1986)*, 106th edition, U.S. Department of Commerce, Bureau of the Census, pp. 871–876, for location and size of metropolitan areas; and *Commercial Atlas and Marketing Guide*, 117th Edition, Rand McNally, Chicago, IL, 1986, for distances.

Table B.2

GEOGRAPHIC CHARACTERISTICS OF ARMY COMMUNITIES IN GERMANY BY SIZE: FISCAL YEAR 1986

Community	Number of Soldiers	Number of Civilians	Nearest Metropolitan Area (m = miles)	Size of Nearest City
		7,000 or more		
Armored Dvsn	14,738	3,150	In Nuremberg	483,900
Armored Dvsn	13,733	2,210	In Hanau	86,300
HQ Eucom/Corps	13,310	5,060	In Stuttgart	582,400
Field Artill	12,956	2,300	In Giessen	76,400
Infantry/Mech	12,150	2,550	In Wurzberg	127,900
HQ V Corps	9,690	5,950	In Frankfurt	629,200
Infantry/Mech	9,486	2,450	50 m SW of Mainz	186,700
Infantry/Mech	9,222	1,200	In Schweinfurt	52,700
Infantry/Mech	8,286	2,200	In Mannheim	303,600
Armored Dvsn	7,487	1,375	In Ansbach	38,300
Armored Dvsn	7,458	1,880	Near Bremerhaven	138,900
		1,000–6,999		
Air Def Cmd	5,910	1,300	In Darmstadt	138,300
Training Cmd	5,579	3,560	In Amberg	44,500
Infantry Dvsn	5,233	2,965	In Wiesbaden	273,700
Eng Brigade	5,185	2,710	In Karlsruhe	270,800
Infantry/Mech	5,102	4,870	In Mainz	186,700
HQ/USAREUR	4,971	3,495	In Heidelberg	131,900
Infantry/Mech	4,760	830	In Aschaffenburg	59,200
HQ/Support Cmd	4,709	5,300	In Kaiserslautern	98,800
Engineer Batln	4,699	785	In Heilbronn	111,500
Ordnance Brig	4,639	1,960	In Pirmasens	50,000
Armor/Cav Reg	4,415	950	In Fulda	57,100
Corps Artill	4,314	1,550	In Augsburg	246,600
Infantry /Fwd	4,144	250	In Goeppingen	53,500
Infantry/Mech	3,909	1,100	22 m SW of Mainz	186,700
Brigade	3,803	4,170	In Berlin	1,898,900
Infantry/Fwd	3,784	400	In Neu Ulm	47,300
Infantry/Mech	2,583	620	70 m SE of Giessen	76,400
Aviation Group	1,925	1,320	In Rheinberg	26,300
Ordnance Group	1,913	2,000	In Zweibruecken	35,000
Signal Command	1,484	1,700	In Worms	73,500
Mil Intell Group	1,030	1,405	In Munich	1,298,900

SOURCE: *Statistisches Jahrbuch, fur dir Bundesrepublik Deutschland*, Verlag W. Kohlhammer, Stuttgart, Germany, 1981.

Table B.3

GROUPINGS OF ARMY INSTALLATIONS IN THE UNITED STATES AND IN GERMANY BY SIZE, LOCATION, AND MISSION

Group Characteristics: Size/Proximity to/Mission[a]	Installation or Community
United States	
1. Large/urban/combat	**Fort Lewis**[b]
2. Large/urban/training	**Fort Bliss**, Fort Jackson
3. Large/suburban/combat	Fort Campbell, **Fort Carson**, Fort Ord
4. Large/suburban/training	Fort Knox
5. Large/rural/combat	Fort Bragg, **Fort Hood**, Fort Riley
6. Large/rural/training	**Fort Sill**, Fort Leonard Wood
7. Medium/urban/combat	**Schofield Barracks**
8. Medium/urban/training	Fort Eustis
9. Medium/urban/support	Fort Sam Houston, **Fort Meade**
10. Medium/suburban/training	Fort Benning, Fort Dix, Fort McClellan, **Fort Gordon**, Fort Devens, Westpoint, Fort Lee
11. Medium/suburban/support	Aberdeen Proving Ground
12. Medium/rural/combat	Fort Stewart, **Fort Polk**
13. Medium/rural/support	**Fort Huachuca**
14. Small/urban/training	**Fort Harrison**, Fort Story, Fort McNair, Fort Shafter
15. Small/urban/support	Walter Reed Army Medical Center, Presidio of San Francisco, Fitzsimmons Army Medical Center, Fort McPherson, Fort Meyer, Tripler Army Medical Center, Camp Buellis,[c] Arlington Hall Station, **Fort Sheridan**
16. Small/suburban/combat	Fort Richardson
17. Small/suburban/training	**Fort Leavenworth**, Fort Belvoir, Hunter Army Air Field, Presidio of Monterey
18. Small/suburban/support	**Redstone Arsenal**, Fort Monmouth, Fort Ritchie
19. Small/rural/combat	Fort Irwin, **Fort Wainwright**, Fort Drum
20. Small/rural/training	Fort Rucker
21. Small/rural/support	White Sands Missile Range
Germany	
1. Large/urban/combat	**Nuremberg**
2. Large/urban/support	Stuttgart, Frankfurt, **Mannheim**
3. Large/rural/combat	Baumholder, Norddeutschland, Geissen, **Schweinfurt**, Ansbach, Bamberg
4. Large/rural/support	Hanau, Wurzberg
5. Small/urban/combat	Weisbaden, Augsberg
6. Small/urban/support	**Karlsruhe**, Berlin, Munich
7. Small/rural/combat	Darmstadt, Amberg, Aschaffenberg, Heilbronn, **Fulda**, Goeppingen Neu Ulm, Wildflecken, Bad Kreuznach
8. Small/rural/support	**Mainz**, Heidelberg, Kaiserslautern

[a] See Sec. II for the definitions of groupings.
[b] Installations in bold letters were selected for our survey.
[c] This installation was not included because a valid identification code for the site was not available.

Table B.4

TOTAL ACTIVE DUTY PERSONNEL IN ALL INSTALLATIONS AND IN INSTALLATIONS INCLUDED IN SAMPLE BY STRATUM: UNITED STATES

	Total Population		Installations in Sample	
Stratum	Active Duty Personnel	Number of Installations	Active Duty Personnel	Number of Installations
Proximity				
Urban	128,670	21	67,774	5
Suburban	182,263	22	51,027	5
Rural	176,444	11	81,111	5
Size				
Large	278,078	12	144,115	6
Medium	137,798	22	39,886	4
Small	71,501	11	15,911	5
Mission				
Combat	236,636	14	110,110	6
Training	193,038	23	78,660	5
Support	57,703	17	11,142	4

SOURCE: *Defense 87*, November/December issue, U.S. Government Printing Office, Washington, D.C.

Table B.5

TOTAL ACTIVE DUTY PERSONNEL IN ALL INSTALLATIONS AND IN INSTALLATIONS INCLUDED IN SAMPLE BY STRATUM: GERMANY

	Total Population		Installations in Sample	
Stratum	Active Duty Personnel	Number of Installations	Active Duty Personnel	Number of Installations
Proximity				
Urban	65,589	9	28,209	3
Rural	144,129	24	18,276	3
Size				
Large	125,627	12	32,246	3
Small	84,091	21	14,239	3
Mission				
Combat	119,713	19	28,375	3
Support	90,005	14	18,110	3

SOURCE: *Defense 87*.

Table B.6

SAMPLE SIZES BY INSTALLATION

Installation or Community	Sample Size		
	Soldiers	Spouses	Total
CONUS			
Lewis	638	396	1,034
Bliss	512	303	815
Carson	730	466	1,196
Hood	975	622	1,597
Sill	524	336	860
Schofield Barracks	465	260	725
Meade	331	196	527
Gordon	372	195	567
Polk	531	274	805
Huachuca	333	212	545
Sheridan	213	131	344
Leavenworth	358	196	554
Redstone Arsenal	326	130	456
Wainwright	307	205	512
Harrison	346	177	523
Germany			
Nuremberg	681	433	1,114
Mannheim	766	504	1,270
Schweinfurt	765	504	1,269
Karlsruhe	619	390	1,009
Fulda	711	454	1,165
Mainz	766	432	1,198
Korea			
Youngsan	600	355	955
Casey	635	338	973
Total	12,504	7,509	20,013

Table B.7

SAMPLE SIZES BY STRATUM

Stratum[a]	Sample Size		
	United States	Germany	Korea
OCSNF	15	0	1
OCSKF	5	0	0
OCMNF	20	0	2
OCMKF	14	0	0
OJSNF	168	0	10
OJSKF	32	2	0
OJMNF	260	24	12
OJMKF	83	4	0
ECSNF	100	42	13
ECMNF	262	139	60
ECSKF	153	40	15
ECMKF	209	73	10
EJSNF	212	93	45
EJMNF	174	184	68
EJSKF	101	35	20
EJMKF	87	66	9
OCSNM	33	0	4
OCSKM	40	1	3
OCMNM	138	10	6
OJSKM	72	11	2
OJSNM	349	0	60
OCMKM	664	102	56
OJMNM	785	179	34
OJMKM	1079	333	56
ECSNM	512	364	58
ECSKM	481	130	75
ECMNM	869	887	206
ECMKM	1265	945	416
EJSNM	638	635	206
EJSKM	214	185	49
EJMNM	719	1219	266
EJMKM	1305	1321	166
Total	11,060	7,025	1,928

[a]Sampling strata are denoted by a five-character string in which each letter of the string represents a dichotomous indicator: (1) O = Officer, E = Enlisted; (2) C = Career, J = Junior; (3) S = Single, M = Married; (4) K = Children, N = No children; (5) F = Female, M = Male.

Appendix C

SURVEY RESPONSE RATES

Table C.1

RESPONSE RATES BY INSTALLATION

Installation or Community	Response Rate		
	Soldiers	Spouses	Total
CONUS			
Lewis	68	60	64
Bliss	70	70	70
Carson	58	56	57
Hood	74	67	72
Sill	78	67	74
Schofield Barracks	74	68	72
Meade	73	62	69
Gordon	58	62	60
Polk	63	59	61
Huachuca	72	63	68
Sheridan	77	51	67
Leavenworth	81	69	76
Redstone Arsenal	75	75	75
Wainwright	68	63	66
Harrison	77	71	75
Germany			
Nuremberg	86	75	82
Mannheim	72	60	67
Schweinfurt	20	24	22
Karlsruhe	20	22	20
Fulda	80	74	78
Mainz	64	55	61
Korea			
Youngsan	67	51	61
Casey	60	33	51
Total	64	56	61

Table C.2

RESPONSE RATES BY RANK, MISSION, LOCATION, MARITAL STATUS, FAMILY STATUS, AND GENDER

Group	Response Rate		
	Soldiers	Spouses	Total
Rank			
Junior enlisted	65	56	62
Senior enlisted	71	58	66
Officer	80	75	78
Mission			
Combat	67	60	64
Support/training	75	65	71
Location			
United States	70	64	68
Germany	75	65	72
Korea	64	42	56
Marital status			
Single	69	—	69
Married	72	63	68
Presence of children			
Children	73	68	70
No children	70	58	66
Gender			
Male	70	64	68
Female	75	52	69

NOTE: No follow-up effort was made at Schweinfurt or Karlsruhe after initial mailing of the questionnaire. These communities were excluded from the computation of the total response rates.

Appendix D

WEIGHTS ALLOCATED TO RESPONSES

Table D.1

SOLDIER WEIGHTS ATTACHED TO EACH SOLDIER RESPONDENT BY LOCATION AND STRATUM

	United States				Germany			Korea
Stratum[a]	Large	Medium	Small	Total	Large	Small	Total	Total
OCSNF	(b)							
OCSKF								
OCMNF								
OCMKF				0.367				
OJSNF	0.225	0.387	0.216					
OJSKF				0.163				
OJMNF				0.454				
OJMKF				0.078			2.348	0.714
ECSNF				0.420			0.561	0.935
ECMNF				1.026			1.188	
ECSKF				0.206				
ECMKF				0.279			0.609	0.625
EJSNF				1.537			1.959	0.935
EJMNF				1.848			1.352	
EJSKF				0.418				
EJMKF				0.614			0.652	0.621
OCSNM				0.324				
OCSKM				0.163				
OCMNM				0.815				0.480
OJSKM				0.266			1.406	1.003
OJSNM	0.688	0.737	0.428					0.618
OCMKM	0.324	0.329	0.404				0.662	0.480
OJMNM	0.678	0.685	0.948				1.219	
OJMKM	0.316	0.291	0.224		0.320	0.303		1.003
ECSNM	1.023	1.175	0.537		0.661	0.564		1.686
ECSKM	0.516	0.273	0.146				0.417	0.347
ECMNM	1.339	1.642	1.079		0.862	0.710		0.947
ECMKM	2.202	1.420	1.231		1.326	1.207		1.033
EJSNM	7.370	3.139	2.393		2.977	1.918		2.114
EJSKM				0.695			0.601	0.749
EJMNM	2.561	1.247	1.351		1.123	0.696		0.827
EJMKM	1.073	1.229	0.589		0.499	0.434		0.887

[a]Sampling strata are denoted by a five-character string in which each letter of the string represents a dichotomous indicator: (1) O = Officer, E = Enlisted; (2) C = Career, J = Junior; (3) S = Single, M = Married; (4) K = Children, N = No children; (5) F = Female, M = Male.

[b]A blank space for the weight indicates aggregation of cells. The weight immediately below these blank cells indicates the aggregate weight for all cells above it.

Table D.2

SPOUSE WEIGHTS ATTACHED TO EACH SPOUSE RESPONDENT BY LOCATION AND STRATUM

	United States				Germany			Korea
Stratum[a]	Large	Medium	Small	Total	Large	Small	Total	Total
OCMNF	(b)							
OCMKF				0.481				
OJMNF								
OJMKF				0.317			2.172	
ECMNF				0.241				
EJMNF				1.809			2.392	
ECMKF				0.526				
EJMKF				1.809			0.767	1.340
OCMNM				0.988				
OCMKM	0.279	0.305	0.416				0.806	
OJMNM	0.763	0.857	1.185				1.316	
OJMKM	0.276	0.235	0.209		0.309	0.349		0.640
ECMNM	2.188	2.216	1.396		1.088	0.958		1.622
ECMKM	2.418	1.554	1.407		1.576	1.405		0.954
EJMNM	3.794	1.665	1.281		1.719	1.113		1.662
EJMKM	0.925	0.972	0.607		0.531	0.442		0.954

[a]Sampling strata are denoted by a five-character string in which each letter of the string represents a dichotomous indicator: (1) O = Officer, E = Enlisted; (2) C = Career, J = Junior; (3) S = Single, M = Married; (4) K = Children, N = No children; (5) F = Female, M = Male.

[b]A blank space for the weight indicates aggregation of cells. The weight immediately below these blank cells indicates the aggregate weight for all cells above it.

Table D.3

COUPLE WEIGHTS ATTACHED TO EACH RESPONDING FAMILY BY LOCATION AND STRATUM

	United States				Germany			Korea
Stratum[a]	Large	Medium	Small	Total	Large	Small	Total	Total
OCMNF	(b)			1.012				
OCMKF				0.101				
OJMNF				1.012				
OJMKF				0.101			2.250	
ECMNF								
EJMNF				3.744			2.479	
ECMKF								
EJMKF				0.462			0.874	0.973
OCMNM				0.855				
OCMKM	0.295	0.263	0.360				0.764	
OJMNM	0.744	0.763	1.281				1.316	
OJMKM	0.264	0.230	0.191		0.297	0.307		0.578
ECMNM				1.989	1.047	0.946		1.482
ECMKM	2.340	1.456	1.449		1.420	1.468		1.012
EJMNM				2.549	1.492	1.222		1.482
EJMKM	1.086	1.321	0.705		0.533	0.532		1.012

[a]Sampling strata are denoted by a five-character string in which each letter of the string represents a dichotomous indicator: (1) O = Officer, E = Enlisted; (2) C = Career, J = Junior; (3) S = Single, M = Married; (4) K = Children, N = No children; (5) F = Female, M = Male.

[b]A blank space for the weight indicates aggregation of cells. The weight immediately below these blank cells indicates the aggregate weight for all cells above it.

Appendix E

DEFINITION OF INDEPENDENT VARIABLES

This appendix lists the definitions of all independent variables used in all analyses presented in this report. Dependent variables are defined in the body of the text within their respective sections. A few of these outcomes are used as independent variables in analyses of readiness and demand for services. Unless otherwise indicated, all variables are from the military member survey. If data are available for spouses, or for both the military member and the spouse, that fact is noted in the label (i.e., MM = Military Member and SP = Spouse).

Label	Definition and Specification in Multivariate Models
Individual Characteristics	
Age of MM	Age (continuous) on last birthday. Missing values are filled with date of birth information (recoded to age) from personnel records.
Age of SP	Age (continuous) on last birthday.
Male	1 if male from gender on MM personnel records.
Black	1 if black and not Hispanic, 0 otherwise. Data are coded from racial and ethnic categories on personnel records.
Latino and other race	1 if Latino or other race/ethnicity, 0 otherwise. Data are coded from racial and ethnic categories on personnel records.
Education MM and SP	1 = 8th grade or less; 2 = some high school, but no diploma or equivalency; 3 = high school diploma or equivalency; 4 = some college, but no bachelor's degree; 5 = bachelor's degree; 6 = some graduate school, but no degree; and 7 = postgraduate degree.
Log per capita family income	Monthly basic pay rates (*Uniformed Services Almanac*, 1988), based on paygrade and years of service, are recoded to annual dollars and combined with other sources of income [BAQ (Basic Allowance for Quarters), VHA (Variable Housing Allowance), or Rent Plus; earnings from civilian job(s); and other income received in 1986], converted to log units and adjusted for number of dependents.
Log of SP income	Monthly salary was recoded to annual dollars, converted to log units for spouses who worked. Spouses who reported working but gave an income of 0 were coded as earning $1.
Junior	1 if soldier is of junior rank, 0 otherwise.
Enlisted	1 if enlisted soldier, 0 otherwise.
SP employed	1 if spouse is currently in the labor force, 0 otherwise.
SP in school	1 if spouse is currently in school, 0 otherwise.
Family Structure	
Married	1 if married for the first time or currently married, 0 if single, never married, legally separated, divorced, or widowed. Missing data are filled with data from personnel records.
Dual military family	1 if spouse is also on active duty in the military, 0 otherwise.

Label	Definition and Specification in Multivariate Models
Child dependent living with MM	1 if MM has at least one dependent under age 21 who lives with him or her, 0 otherwise.
Child dependent not living with MM	1 if MM has at least one dependent under age 21 but none live with him or her, 0 otherwise.
Length of marriage MM and SP	Years of marriage to current spouse.
Live with spouse	1 if MM lives with spouse, 0 otherwise.
Military Environment/ Stresses/Practices	
Installation in CONUS	1 if MM stationed at a base located in the continental United States, 0 otherwise.
Installation in Germany	1 if MM stationed at a base located in Germany, 0 otherwise.
Installation in Korea	1 if MM stationed at a base located in Korea, 0 otherwise.
Combat mission	1 if primary mission of installation is combat, 0 otherwise.
Support mission	1 if primary mission of installation is support, 0 otherwise.
Training mission	1 if primary mission of installation is training, 0 otherwise.
Combat unit	1 if primary mission of unit is combat, 0 otherwise.
Installation size	Total number of active duty MMs on installation.
Proximity to urban area	1 if installation is within 20 miles of a metropolitan area (e.g., center with a population of at least 1 million), 0 otherwise. CONUS and Germany only.
Months at current location MM and SP	Length of time (in months) at current duty station.
Commute time	Travel time (in minutes) between residence and duty station.
Frequency of relocation	Number of PCS moves per years of active duty in the Army. Length of service is coded from personnel records.
Did not request a preferred location	1 if did not request a preferred location, 0 otherwise.
Assigned to a preferred location	1 if assigned to a preferred location, 0 otherwise.
Not assigned to a preferred location	1 if not assigned to a preferred location, 0 otherwise.
Log hours worked per week	Log of usual hours worked per week. Extreme values (either less than 40 or more than 126) were set to missing.
Live on base	1 if MM lives on base, 0 otherwise.
Number of separations in past year MM	Total number of separations from spouse or children because of military duties in the past year. Values greater than 5 were set equal to 5.
Length of separations in past year MM and SP	Total number of months separated from spouse or children because of military duties in the past year: 1 = less than 1; 2 = 1–2; 3 = 3–4; 4 = 5–8; 5 = 9 or more.
Accompanied by spouse	1 if presently living with spouse, 0 otherwise.
SP problems due to MM work schedule	Likert scale derived from six items in response to a question about how often the spouse's work schedule or absence posed the following problems for the family in the past month: work schedule, child care, transportation, health, or financial/legal matters. All relevant items were rescored to 1–5 scale (nonapplicable items were set to missing): 1 = none of the time; 2 = a little of the time; 3 = some of the time; 4 = most of the time; and 5 = all of the time, averaged and transformed from 0 to 100.

Label	Definition and Specification in Multivariate Models
Perceptions/Intentions	
Supportiveness of Army leadership MM and SP	Likert scale derived from ratings of how supportive of Army families each of three types of leadership was: post/garrison, battalion, and unit/company. All items were reversed so that: 1 = poor; 2 = fair; 3 = good; 4 = very good; and 5 = excellent, averaged, and transformed from 0 to 100.
Necessity of time spent at work MM and SP	Necessity of all the time spent at work for Army mission accomplishment. Recoded from 1–6 where: 1 = completely unnecessary; 2 = very unnecessary; 3 = somewhat unnecessary; 4 = somewhat necessary; 5 = very necessary; and 6 = completely necessary, averaged, and transformed from 0 to 100.
Necessity of PCS moves MM and SP	Necessity of all the PCS moves made for Army mission accomplishment. Scored same as above.
Necessity of separations MM and SP	Necessity of all the separations from spouse because of military duties for Army mission accomplishment. Scored same as above.
Army life better than civilian life MM and SP	Likert scale derived from ratings of six items comparing MM's career in the Army with a career in the civilian sector on: family's overall satisfaction, job security, pay, retirement benefits, other benefits, and chance to use abilities. Items were reversed in the direction of a preference for the Army: 1 = civilian life much better; 2 = civilian life somewhat better; 3 = no difference; 4 = Army somewhat better; and 5 = Army much better. Responses were averaged and transformed from 0 to 100.
Individual Functioning	
Perceived availability of social support MM and SP	Likert scale derived from responses to five items about perceived availability of social support: someone you can count on to listen to you when you need to talk, someone who shows you love and affection, someone to do something enjoyable with, someone to help with daily chores if you were sick, and someone to loan you money. Scores ranged from 1 = none of the time; 2 = a little of the time; 3 = some of the time; 4 = most of the time; and 5 = all of the time. Responses were averaged and transformed from 0 to 100.
Mental health MM and SP	Likert scale derived from 5 items which asked about the amount of time during the past month the respondent has: been a very nervous person, felt calm and peaceful, felt downhearted and blue, been a happy person, and felt so down in the dumps that nothing could cheer them up. Scores ranged from 1 = none of the time; 2 = a little of the time; 3 = some of the time; 4 = a good bit of the time; 5 = most of the time; and 6 = all of the time. All items were scored in the direction of better health, averaged, and transformed from 0 to 100.
Depressed MM and SP	1 if depressed or sad for at least two weeks or more in the past year or if had two years or more in life when felt depressed or sad *and* felt depressed or sad much of the time in the past year, 0 otherwise.
Marital satisfaction MM and SP	Likert scale derived from ratings of the amount of truth in each of four statements about the respondent's relationship with their spouse during the past six months: "We said anything we wanted to say to each other"; "We often had trouble sharing our personal feelings"; "My spouse was supportive of me"; and "We tended to rely on other people for help rather than on each other." Scores ranged from 1 = definitely true; 2 = mostly true; 3 = don't know; 4 = mostly false; and 5 = definitely false. All items were scored in the direction of greater satisfaction with the marital relationship, averaged, and transformed from 0 to 100.

Label	Definition and Specification in Multivariate Models
Family Functioning	
Shares family chores equally MM and SP	1 if MM reports that chores are shared equally between respondent and spouse, 0 otherwise. Based on the average score across six types of chores or responsibilities (e.g., if average = 4): caring for children on a daily basis; handling bills; making family decisions; planning and taking care of PCS moves; doing the housework; and planning, taking care of family recreational activities where: 2 = you only; 3 = you mostly; 4 = you and spouse equally; 5 = spouse mostly; and 6 = spouse only. (1 = Does not apply, recoded to missing).
Does family chores most of the time MM and SP	Same as "shares family chores equally" (above) except 1 if average score = 2 or 3.
Adequacy of income MM and SP	Adequacy of household income in meeting needs (including spouse's income) where: 1 = completely adequate; 2 = adequate; 3 = somewhat adequate; 4 = somewhat inadequate; 5 = inadequate; and 6 = completely inadequate. Rescored so higher value indicated completely adequate.
Readiness	
Overall commitment to the Army MM and SP	Likert scale derived from agreement ratings on four statements: "I talk up the Army to my friends as a great place to be associated with"; "I find that my values and the Army's values are very similar"; "There is not much to be gained for me by sticking with the Army indefinitely"; and "The Army is the best of all places for me to work" where: 1 = strongly agree; 2 = agree; 3 = uncertain; 4 = disagree; and 5 = strongly disagree. All items were reversed so that a high score represents stronger commitment, averaged, and transformed from 0 to 100.
Service Use/Needs	
Army helped MM and SP get settled	Likert scale derived from responses to five items rating how well the Army community (including unit sponsor) helped with getting settled at current duty station: "Made me feel welcome"; "Told me about my new assignment"; "Helped me locate day-to-day necessities"; "Helped me find permanent housing"; and "Told me about programs and activities that were available" where: 1 = excellent; 2 = very good; 3 = good; 4 = fair; and 5 = poor. All items were reversed so that a high score represents more help, averaged, and transformed from 0 to 100.
Need financial assistance	1 if respondent needed financial counseling or assistance in the past 6 months, 0 otherwise.

Appendix F

LOGISTIC AND NEGATIVE BINOMIAL REGRESSION TECHNIQUES

LOGISTIC REGRESSION MODELING FOR DICHOTOMOUS VARIABLES

We used a logistic regression model to predict whether a military member will or will not do something in an either/or situation. This technique was chosen because a linear specification often substantively misrepresents the underlying functional form and ordinary estimation techniques are statistically inefficient.

Logistic models are based on the assumption that the underlying relationship of probability of an event occurring and the explanatory variables can be represented as a logistic function. Such a function is S-shaped, lies between zero and one, and has its maximum slope in the mid-range, conforming to what we would expect of a probability. The coefficients of the logistic regression are used to determine how particular factors or characteristics increase or decrease the probability of the event occurring for specific subgroups of the population, defined by the independent variables. It is sometimes more convenient to use odds rather than probabilities to describe differences in the probability of an event occurring among subgroups because our estimates are linear in the odds. The estimated odds on using services is calculated as $p/1 - p = e^{(\beta x)}$, where b is the logistic regression coefficient and x takes on the value of the variable of interest.[1] Logistic regression analysis lends itself to convenient interpretation in the case of service use prediction. Each military member has an estimated score L that is determined by his or her characteristics.

$$L = a + b_1x_1 + b_2x_2 + \ldots b_kx_k$$

which is equivalent to the natural logarithm of odds or $p/(1 - p)$. An individual military member's probability of service use is therefore equal to

$$p = 1/1 + e^{-L}$$

The greater the value of L (the linear combination of characteristics that positively affects service use chances), the more clearly e^{-L} approaches zero and p approaches one. Thus, L is ln $(p/1 - p)$, the natural logarithm of the estimated odds.

NEGATIVE BINOMIAL REGRESSION MODELING OF THE INTENSITY OF SERVICE USE

We used a negative binomial regression model to estimate the response of the intensity of use (medical visits, mental health visits, counseling visits, etc.) to the effect of family structure, rank structure, and personal characteristics. The negative binomial distribution provides an attractive basis for modeling visits because it can handle two characteristics observed in the service use data: a large proportion of zero visits and a skewed distribution of positive use

[1]For example, if a military member with an accompanying spouse has an estimated odds of service use relative to a single military member that is equal to 1.61, his odds are 61 percent higher of using services.

(counts) (Hausman et al., 1984). This approach allows us to explain the number of visits added by the *ith* individual in the past six months, n_i, as follows:

$$P(N = n_i) = \lambda_i \exp(-\lambda_i)/n_i! \tag{1}$$

where $\lambda_i = A_i \exp(\mathbf{x}_i\delta)$ (2)

$A = \Gamma(\Theta)$ (3)

for

δ_i = rate at which visits are accumulated by *ith* person
N = random variable
$\Gamma(\Theta)$ = gamma distribution with parameters Θ and Ψ, where Ψ is held constant

This model uses information on level of use (n_i) and characteristics of the individual ($\mathbf{x}_i$) to estimate δ and Θ, which permit us to explain how elements of $\mathbf{x}_i$ affect the level of n_i.

If A_i were not distributed as a gamma distribution with parameter Θ, but instead was constant and equal for all i, Eqs. (2) and (3) together would define a Poisson model. We would have to make two important assumptions to use the Poisson model. First, additions are assumed independent of each other. Our data do not indicate clustering, so this assumption would not be a bad approximation. Second, the mean and variance of visits should be equal to λ for the Poisson to be a good approximation. This assumption is too restrictive in our case. Instead of assuming all A_i are equal to a common constant, we assume they are distributed according to a gamma distribution.

The negative binomial model works in the following way. A gamma distribution can represent a wide range of functions, depending on the value of Θ, which is to be estimated. We can interpret A_i as follows: For every person, we have a set of observable characteristics, $\mathbf{x}_i$, that affects service use. In addition, for every person, there are characteristics we did *not* observe, and these factors also influence use. Therefore, we may have two persons with identical values of independent variables but with different levels of service use. Different realizations of A_i and A_j, from the gamma distribution $\Gamma(\Theta)$, may be assumed to be the reason for this unexplained difference in use levels of these observations.

In drawing inferences, we cannot make different predictions for these two observations, but our inferences will indicate the general tendency of the use rate, given a set of values for the independent variables. Individuals will have different realizations of use rates around this general tendency according to a gamma distribution. In sum, this model incorporates our ignorance about decisions to use services by individuals but allows us to make inferences about the general tendency to use services.

Appendix G

REGRESSION RESULTS FOR ANALYSIS OF SOLDIERS' WELL-BEING

The three tables in this appendix show the linear and logistic regression results for each of the dependent variables measuring a soldier's well-being. Each table includes a column for each of the four samples of military members analyzed (all military members, singles only, marrieds only, and couples). The coefficients shown are unstandardized regression coefficients, with log odds for logistic models. Variables listed in the left column represent the full specification of the model. Coefficients shown for each sample are those that were retained in the final specifications. Slightly different specifications for some of the predictor variables were used. These differences are noted in the respective tables. Specific definitions for independent variables were shown in App. E.

Table G.1

REGRESSION RESULTS FOR GENERAL EMOTIONAL WELL-BEING

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Constant	72.13	76.54	88.06	90.87
Individual Characteristics				
Age	0.15**	0.31***	0.06	0.02
Male	3.74***	NA	3.43***	3.17*
Black	3.20***	3.48**	3.52***	1.08
Education				
Logarithm of per capita family income	1.15			
Junior enlisted[a]	-2.56***	-2.13	-3.30***	-3.30**
Junior officer	-1.19	0.27	-0.15	-0.98
Senior officer	-0.50	2.27	0.50	-0.08
Family Structure				
Married	-0.41	NA	NA	NA
Dual military family	NA	NA	NA	
Child dependent accompanying	0.80	NA	NA	NA
Child dependent not acc.	-0.88	NA	NA	NA
Live with spouse	NA	NA		
Years married to current spouse	NA	NA		
Specific Interactions[b]				
Male, unacc. by child(ren)[c]	NA	3.73*	NA	NA
Male, acc. by child(ren)[c]	NA	2.96	NA	NA
Female, unacc. by child(ren)[c]	NA	0.34	NA	NA
Unacc. by family[d]	NA	NA	-5.90**	-6.04
Acc. by spouse, no child(ren)[d]	NA	NA	-0.78	-0.24
Unacc. by spouse, no child(ren)[d]	NA	NA	-1.63	3.72
Acc. by family[d]	NA	NA	-0.34	-0.07
Dual military, acc. child(ren)	NA	NA	NA	
Nondual military, acc. child(ren)	NA	NA	NA	
Dual military, no acc. child(ren)	NA	NA	NA	

Table G.1—continued

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Army Environment and Practices				
Installation in CONUS	2.04***	2.14*	1.32*	
Combat mission				
Combat unit				
Installation size				
Urban location				
Suburban location				
Logarithm of commute time				
Number of PCS per yr of service				
Logarithm of time (months) at current location				
Did not request a preferred location				
Assigned to a preferred location				
Not assigned preferred location			-1.44*	
Logarithm of hours worked per week	-7.17***	-7.27***	-6.71***	-8.32***
Live on base				
Number of separations in past yr	NA	NA	-0.38*	
Months of separations in past yr	NA	NA		
Accompanied tour	NA	NA		
Problems from MM work schedule	NA	NA	NA	
Perceptions of Army Environment and Practices				
Supportiveness of Army leadership	0.07***	0.10***	0.06***	0.08***
Necessity of time spent on duty	1.45***	1.65***	1.51***	1.29***
Necessity of PCS moves	0.60**		0.69**	0.92**
Necessity of family separations	NA	NA		
Army life better than civilian career	0.04**		0.04**	
Army helped get settled at new location	0.02*			
Adequacy of income	1.95***	1.62***	2.11***	1.71***
Perceived availability of social support	0.21***	0.22***	0.20***	0.17***
Spouse Characteristics				
Employed	NA	NA	NA	
In school	NA	NA	NA	
Logarithm of income	NA	NA	NA	
Education	NA	NA	NA	
Age	NA	NA	NA	
Born in United States	NA	NA	NA	-3.09*
Born in Germany	NA	NA	NA	-3.16
Born in Korea	NA	NA	NA	1.65
Necessity of time spent on duty	NA	NA	NA	
Necessity of PCS moves	NA	NA	NA	
Necessity of family separations	NA	NA	NA	
Supportiveness of Army leadership	NA	NA	NA	
Army life better than civilian career	NA	NA	NA	
Perception helped get settled	NA	NA	NA	
Adequacy of income	NA	NA	NA	
Satisfaction with marriage	NA	NA	NA	
General emotional well-being	NA	NA	NA	0.17***
Depression	NA	NA	NA	
Marital satisfaction	NA	NA	NA	
Shares family chores equally[e]	NA	NA	NA	-0.05
Does family chores mostly[e]	NA	NA	NA	-2.38**

NOTE: Entries indicate regression coefficients included in the final specification of the model. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. NA = not applicable for model. Blanks indicate variables were nonsignificant and therefore dropped from the final models. Certain individual characteristics and family structure variables were included in the final models even if nonsignificant.

[a]Rank is evaluated by a four-category specification derived by crossing the dummy variables for Enlisted and Junior; "Senior enlisted" is the omitted group.

[b]For the single sample, we tested interactions among the dummy variable for male and the dummy variables for child dependents. For the married and couple samples, we tested combinations of family structure and accompaniment.

[c]Omitted group is females with accompanied children.

[d]Omitted group is soldiers accompanied by their spouses but not by their children.

[e]Omitted group is mostly spouse does family chores.

Table G.2

REGRESSION RESULTS FOR DEPRESSION

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Constant	1.85	1.35	-1.07	-1.80
Individual Characteristics				
Age	-0.02*	-0.04***		
Male	-0.27*	NA	-0.32*	
Black	-0.16	-0.25		
Education	-0.09		-0.16***	-0.15*
Logarithm of per capita family income	-0.22*			
Junior enlisted[a]	0.14	-0.01	0.41***	0.28
Junior officer	-0.12	-0.76***	0.10	-0.04
Senior officer	0.01	0.24	-0.09	-0.03
Family Structure				
Married	-0.21**	NA	NA	NA
Dual military family	NA	NA	NA	
Child dependent accompanying	-0.08	NA	NA	NA
Child dependent not acc.	0.14	NA	NA	NA
Live with spouse	NA	NA		
Years married to current spouse	NA	NA		
Specific Interactions[b]				
Male, unacc. by child(ren)[c]	NA	-0.08	NA	NA
Male, acc. by child(ren)[c]	NA	0.71*	NA	NA
Female, unacc. by child(ren)[c]	NA	0.16	NA	NA
Unacc. by family[d]	NA	NA	-0.09	0.02
Acc. by spouse, no child(ren)[d]	NA	NA	-0.64***	-0.73*
Unacc. by spouse, no child(ren)[d]	NA	NA	-0.42	-0.72
Acc. by family[d]	NA	NA	-0.52**	-0.50
Dual military, acc. child(ren)	NA	NA	NA	
Nondual military, acc. child(ren)	NA	NA	NA	
Dual military, no acc. child(ren)	NA	NA	NA	
Army Environment and Practices				
Installation in CONUS				
Combat mission				
Combat unit				
Installation size				
Urban location				
Suburban location				
Logarithm commute time				
Number of PCS per yr of service				
Logarithm of time (months) at current location				
Did not request a preferred location				
Assigned to a preferred location				
Not assigned preferred location			0.12	
Logarithm of hours worked per week	0.38*		0.53**	0.61*
Live on base				
Number of separations in past yr	NA	NA		
Months of separations in past yr	NA	NA		
Accompanied tour	NA	NA		
Problems from MM work schedule	NA	NA	NA	

Table G.2—continued

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Perceptions of Army Environment and Practices				
Supportiveness of Army leadership	-0.004**	-0.01**		
Necessity of time spent on duty	-0.11***	-0.14**	-0.12***	-0.12*
Necessity of PCS moves				
Necessity of family separations	NA	NA		
Army life better than civilian career	-0.004*		-0.01**	
Army helped get settled in new location				-0.01**
Adequacy of income	-0.19***	-0.16***	-0.21***	-0.19***
Perceived availability of social support	-0.02***	-0.02***	-0.02***	-0.01***
Spouse Characteristics				
Employed	NA	NA	NA	
In school	NA	NA	NA	
Logarithm of income	NA	NA	NA	0.02
Education	NA	NA	NA	
Age	NA	NA	NA	
Born in United States	NA	NA	NA	
Born in Germany	NA	NA	NA	
Born in Korea	NA	NA	NA	
Necessity of time spent on duty	NA	NA	NA	
Necessity of PCS moves	NA	NA	NA	
Necessity of family separations	NA	NA	NA	
Supportiveness of Army leadership	NA	NA	NA	
Army life better than civilian career	NA	NA	NA	
Perception helped get settled	NA	NA	NA	
Adequacy of income	NA	NA	NA	
Satisfaction with marriage	NA	NA	NA	
General emotional well-being	NA	NA	NA	
Depression	NA	NA	NA	0.57***
Marital satisfaction	NA	NA	NA	-0.01**
Shares family chores equally[e]	NA	NA	NA	0.21
Does family chores mostly[e]	NA	NA	NA	0.40**

NOTE: Entries indicate regression coefficients included in the final specification of the model. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. NA = not applicable for model. Blanks indicate variables were nonsignificant and therefore dropped from the final models. Certain individual characteristics and family structure variables were included in the final models even if nonsignificant.

[a]Rank is evaluated by a four-category specification derived by crossing the dummy variables for Enlisted and Junior; "Senior enlisted" is the omitted group.

[b]For the single sample, we tested interactions among the dummy variable for male and the dummy variables for child dependents. For the married and couple samples, we tested combinations of family structure and accompaniment.

[c]Omitted group is females with accompanied children.

[d]Omitted group is soldiers accompanied by their spouses but not by their children.

[e]Omitted group is mostly spouse does family chores.

Table G.3

REGRESSION RESULTS FOR MARITAL SATISFACTION

Variable	Coefficients by Sample	
	Married	Couple
Constant	71.50	52.88
Individual Characteristics		
Age	0.11	
Male	3.22***	
Black		
Education	-0.77*	
Logarithm of per capita family income		
Junior enlisted[a]	-1.42	-3.05**
Junior officer	1.33	-0.07
Senior officer	-0.78	-1.10
Family Structure		
Married	NA	NA
Child dependent accompanying	NA	NA
Child dependent not acc.	NA	NA
Live with spouse		
Years married to current spouse		
Specific Interactions		
Unacc. by family[b]	-7.78***	
Acc. by spouse, no child(ren)[b]	1.61	
Unacc. by spouse, no child(ren)[b]	-2.77	
Acc. by family[b]	-2.34	
Dual military, acc. child(ren)	NA	-2.70
Nondual military, acc. child(ren)	NA	-2.65***
Dual military, no acc. child(ren)	NA	-3.91*
Army Environment and Practices		
Installation in CONUS	1.60*	
Combat mission		
Combat unit		
Installation size		
Urban location		
Suburban location		
Commute time		
Number of PCS per yr of service		
Logarithm of time (months) at current location	-2.47***	
Did not request a preferred location		
Assigned to a preferred location		
Not assigned preferred location		
Logarithm of hours worked per week		-2.16
Live on base		
Number of separations in past yr		
Months of separations in past yr		
Accompanied tour		
Problems from MM work schedule		
Perceptions of Army Environment and Practices		
Supportiveness of Army leadership		
Necessity of time spent on duty	0.68**	
Necessity of PCS moves	0.43	0.66*
Necessity of family separations		
Army life better than civilian career		

Table G.3—continued

Variable	Coefficients by Sample: Married	Coefficients by Sample: Couple
Army helped get settled at new location		
Adequacy of income	1.07***	
Perceived availability of social support	0.27***	0.18***
Spouse Characteristics		
Employed	NA	
In school	NA	
Logarithm of income	NA	
Education	NA	
Age	NA	
Born in United States	NA	
Born in Germany	NA	
Born in Korea	NA	
Necessity of time spent on duty	NA	
Necessity of PCS moves	NA	
Necessity of family separations	NA	-0.45
Supportiveness of Army leadership	NA	-0.02
Army life better than civilian career	NA	
Perception Army helped get settled	NA	
Adequacy of income	NA	
General emotional well-being	NA	0.08***
Depression	NA	
Marital satisfaction	NA	0.32***
Shares family chores equally[c]	NA	-0.56
Does family chores mostly[c]	NA	-5.37***

NOTE: Entries indicate regression coefficients included in the final specification of the model. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. NA = not applicable for model. Blanks indicate variables were nonsignificant and therefore dropped from the final models. Certain individual characteristics and family structure variables were included in the final models even if nonsignificant.

[a]Rank is evaluated by a four-category specification derived by crossing the dummy variables for Enlisted and Junior; "Senior enlisted" is the omitted group.

[b]Omitted group is soldiers accompanied by their spouses but not by their children.

[c]Omitted group is mostly spouse does family chores.

Appendix H

REGRESSION RESULTS FOR ANALYSIS OF SOLDIERS' INDIVIDUAL READINESS

In this appendix seven tables show the linear and logistic regression results for each of the dependent variables measuring soldiers' individual readiness. Tables H.1–H.5 and Table H.7 include a column for each of the four samples of military members analyzed (all military members, singles only, marrieds only, and couples). The coefficients shown are unstandardized regression coefficients, with log odds for logistic models. Variables listed in the left column represent the full specification of the model. Coefficients shown for each sample are those that were retained in the final specifications. Slightly different specifications for some of the predictor variables were used. These differences are noted in the respective tables. Specific definitions for independent variables were shown in App. E.

Table H.1

REGRESSION RESULTS FOR JOB-RELATED PROBLEMS

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Constant	69.19	65.30	59.96	56.95
Individual Characteristics				
Age	0.04	0.12	-0.04	.004
Male	-1.38*	-1.47	-1.09	-2.50*
Black	-1.04*			
Education				
Logarithm of per capita family income				
Junior	-0.99*	-0.72	-1.40*	-1.28
Enlisted	-1.28*	-1.12	-1.85**	-1.76*
Family Structure				
Married	1.43**	NA	NA	NA
Dual military family	NA	NA		-3.15**
Child dependent accompanying	0.43	1.84	-0.12	-0.24
Child dependent not acc.	0.43	0.76	0.06	0.52
Live with spouse	NA	NA	-0.49	1.62
Logarithm of years married to current spouse	NA	NA		
Accompanied tour				
Specific Interactions[a]				
Male, unacc. by child(ren)	NA		NA	NA
Male, acc. by child(ren)	NA		NA	NA
Dual, unacc. by child(ren)	NA	NA	NA	
Dual, acc. by child(ren)	NA	NA	NA	
Army Environment and Practices				
Installation in CONUS				
Installation in Germany				
Installation in Korea				
Combat mission				

Table H.1—continued

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Support mission				
Training mission				
Combat unit	-1.42**		-1.82***	-2.26***
Installation size				
Rural location				
Urban location				
Suburban location				
Logarithm of commute time				
Number of PCS per yr of service				
Did not request a preferred location				
Assigned to a preferred location				
Not assigned to preferred location				
Logarithm of months at current location				
Logarithm of hours worked per week	-3.59***	-5.18**		
Live on base				
Number of separations in past yr				
Months of separations in past yr			-0.57***	-0.27
Problems from MM work schedule				
Perceptions of Army Environment and Practices				
Supportiveness of Army leadership	0.07***	0.09***	0.07***	0.56***
Necessity of time spent on duty	-1.60***	-1.18***	-1.69***	-1.72***
Necessity of PCS moves	-0.27			
Necessity of family separations				
Army life better than civilian career				
Adequacy of income	0.31		0.37	0.46
Perceived availability of social support	-0.02**		-0.04***	-0.04**
Individual Well-Being				
General emotional well-being	0.33***	0.36***	0.32***	0.29***
Depression	-1.61**		-1.85***	-2.65***
Marital satisfaction	NA	NA	0.04**	0.07***
Spouse Characteristics				
Employed	NA	NA	NA	
Logarithm of income	NA	NA	NA	
Education	NA	NA	NA	
Age	NA	NA	NA	
Years married to current spouse	NA	NA	NA	
Necessity of time spent on duty	NA	NA	NA	
Necessity of PCS moves	NA	NA	NA	
Necessity of family separations	NA	NA	NA	
Supportiveness of Army leadership	NA	NA	NA	0.02
Mental health	NA	NA	NA	
Depression	NA	NA	NA	
Marital satisfaction	NA	NA	NA	
Army better than civilian career	NA	NA	NA	
Commitment to the Army	NA	NA	NA	

NOTE: Entries indicate regression coefficients included in the final specification of the model. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. NA = not applicable for model. Blanks indicate variables were nonsignificant and therefore dropped from the final models. Certain individual characteristics and family structure variables were included in the final models even if nonsignificant.

[a]For the married and single samples, we tested interactions among the dummy variable for the male and the dummy variables for child dependents. For the couple sample, we tested combinations of dual military family with the dummy variables for child dependents.

Table H.2

REGRESSION RESULTS FOR LOST DUTY TIME

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Constant	-1.93	-2.50	-1.70	-1.42
Individual Characteristics				
Age	-0.001	-0.01	-0.001	-0.01
Male	-0.28**	-0.32*	-0.25	0.01
Black	0.20*			
Education	-0.12*		-0.11*	-0.15*
Logarithm of per capita family income				
Junior	0.24**	0.16	0.23*	0.22
Enlisted	0.20	0.65**	0.27	0.07
Family Structure				
Married	0.37***	NA	NA	NA
Dual military family	NA	NA		
Child dependent accompanying	0.32***	0.48*	0.29**	0.41**
Child dependent not acc.	0.04	0.21	0.06	0.14
Live with spouse	NA	NA	0.07	-0.07
Logarithm of years married to current spouse	NA	NA		
Accompanied tour				
Specific Interactions[a]				
Male, unacc. by child(ren)	NA		NA	NA
Male, acc. by child(ren)	NA		NA	NA
Dual, unacc. by child(ren)	NA	NA	NA	
Dual, acc. by child(ren)	NA	NA	NA	
Army Environment and Practices				
Installation in CONUS				
Installation in Germany				
Installation in Korea				
Combat mission		-0.35*		
Support mission				
Training mission				
Combat unit				
Installation size				
Rural location				
Urban location				
Suburban location				
Logarithm of commute time				
Number of PCS per yr of service				
Did not request a preferred location			-0.26*	-0.32*
Assigned to a preferred location				
Not assigned to preferred location			-0.29**	-0.32*
Logarithm of months at current location				
Logarithm of hours worked per week				
Live on base				
Number of separations in past yr			0.05	0.06
Months of separations in past yr				
Problems from MM work schedule				

Table H.2—continued

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Perceptions of Army Environment and Practices				
Supportiveness of Army leadership				
Necessity of time spent on duty				
Necessity of PCS moves				
Necessity of family separations			0.10**	0.09*
Army life better than civilian career				
Adequacy of income	0.11***	0.17**		
Perceived availability of social support				
Individual Well-Being				
General emotional well-being				
Depression	0.26***		0.29**	0.34**
Marital satisfaction	NA	NA		
Spouse Characteristics				
Employed	NA	NA	NA	
Logarithm of income	NA	NA	NA	
Education	NA	NA	NA	
Age	NA	NA	NA	
Years married to current spouse	NA	NA	NA	
Necessity of time spent on duty	NA	NA	NA	
Necessity of PCS moves	NA	NA	NA	
Necessity of family separations	NA	NA	NA	
Supportiveness of Army leadership	NA	NA	NA	
Mental health	NA	NA	NA	
Depressed	NA	NA	NA	
Marital satisfaction	NA	NA	NA	
Army better than civilian career	NA	NA	NA	
Commitment to the Army	NA	NA	NA	

NOTE: Entries indicate regression coefficients included in the final specification of the model. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. NA = not applicable for model. Blanks indicate variables were nonsignificant and therefore dropped from the final models. Certain individual characteristics and family structure variables were included in the final models even if nonsignificant.

[a]For the married and single samples, we tested interactions among the dummy variable for the male and the dummy variables for child dependents. For the couple sample, we tested combinations of dual military family with the dummy variables for child dependents.

Table H.3

REGRESSION RESULTS FROM ABSENCE FOR NO-NOTICE ALERT/DEPLOYMENT

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Constant	-10.26	-4.34	-6.47	-14.94
Individual Characteristics				
Age	-0.03	-0.04	-0.01	-0.01
Male	-0.26	-0.03	-0.57	-0.04
Black			0.40	
Education			-0.12	
Logarithm of per capita family income	0.64**		0.73**	1.13**
Junior	0.61**	0.38	0.43	0.79*
Enlisted	1.65***	1.72	1.17*	1.88***
Family Structure				
Married	0.23	NA	NA	NA
Dual military family	NA	NA		0.94
Child dependent accompanying	1.06***	1.82***	0.85	1.83***
Child dependent not acc.	0.65*	0.89*	0.04	0.64
Live with spouse	NA	NA	0.18	-0.21
Logarithm of years married to current spouse	NA	NA		
Accompanied tour				
Specific Interactions[a]				
Male, unacc. by child(ren)	NA		NA	NA
Male, acc. by child(ren)	NA		NA	NA
Dual, unacc. by child(ren)	NA	NA	NA	
Dual, acc. by child(ren)	NA	NA	NA	
Army Environment and Practices				
Installation in CONUS				
Installation in Germany			-0.13	
Installation in Korea			-0.48	
Combat mission			0.23	
Support mission			0.26	
Training mission				
Combat unit			0.40	0.55
Installation size			-0.00	-0.00
Rural location		0.16	-0.04	
Urban location				
Suburban location		0.73*	-0.26	
Logarithm of commute time	0.19		0.08	
Number of PCS per yr of service		-0.24*	-0.05	
Did not request a preferred location			-0.72	-0.84*
Assigned to a preferred location				
Not assigned to preferred location			-0.22	-0.43
Logarithm of months at current location			-0.23	
Logarithm of hours worked per week			-0.53	
Live on base			0.14	
Number of separations in past yr				
Months of separations in past yr				
Problems from MM work schedule				

Table H.3—continued

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Perceptions of Army Environment and Practices				
Supportiveness of Army leadership			-0.005	
Necessity of time spent on duty			0.000	
Necessity of PCS moves			0.02	
Necessity of family separations				
Army life better than civilian career			0.005	
Adequacy of income				
Perceived availability of social support			-0.004	
Individual Well-Being				
General emotional well-being	-0.01**		-0.02*	-0.02**
Depression			-0.07	
Marital satisfaction	NA	NA		
Spouse Characteristics				
Employed	NA	NA	NA	
Logarithm of income	NA	NA	NA	0.07
Education	NA	NA	NA	
Age	NA	NA	NA	
Years married to current spouse	NA	NA	NA	
Necessity of time spent on duty	NA	NA	NA	
Necessity of PCS moves	NA	NA	NA	
Necessity of family separations	NA	NA	NA	
Supportiveness of Army leadership	NA	NA	NA	
Mental health	NA	NA	NA	
Depression	NA	NA	NA	
Marital satisfaction	NA	NA	NA	
Army better than civilian career	NA	NA	NA	
Commitment to the Army	NA	NA	NA	

NOTE: Entries indicate regression coefficients included in the final specification of the model. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. NA = not applicable for model. Blanks indicate variables were nonsignificant and therefore dropped from the final models. Certain individual characteristics and family structure variables were included in the final models even if nonsignificant.

[a]For the married and single samples, we tested interactions among the dummy variable for the male and the dummy variables for child dependents. For the couple sample, we tested combinations of dual military family with the dummy variables for child dependents.

Table H.4

REGRESSION RESULTS FOR COMMITMENT TO THE ARMY

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Constant	-47.45	-28.01	-36.55	-28.91
Individual Characteristics				
Age	0.38***	0.48***	0.29***	0.36**
Male	0.33	2.13	0.47	-1.40
Black				
Education				
Logarithm of per capita family income	2.06**		1.70*	1.53
Junior	-1.70*	-3.35*	-1.49	-2.15*
Enlisted	-3.26***	-5.46***	-3.82***	-3.82**
Family Structure				
Married	2.52***	NA	NA	NA
Dual military family	NA	NA		-2.14
Child dependent accompanying	2.45**	3.33*	1.56	1.37
Child dependent not acc.	2.56*	1.70	1.65	0.24
Live with spouse	NA	NA	0.90	2.14
Logarithm of years married to current spouse	NA	NA		
Accompanied tour				
Specific Interactions[a]				
Male, unacc. by child(ren)	NA		NA	NA
Male, acc. by child(ren)	NA		NA	NA
Dual, unacc. by child(ren)	NA	NA	NA	
Dual, acc. by child(ren)	NA	NA	NA	
Army Environment and Practices				
Installation in CONUS				
Installation in Germany				
Installation in Korea				
Combat mission			-2.16*	-3.23**
Support mission			-0.62	-2.66
Training mission				
Combat unit				
Installation size				
Rural location				
Urban location				
Suburban location				
Logarithm of commute time		1.99***		
Number of PCS per yr of service		-0.68		-0.48
Did not request a preferred location	-1.50*	-2.89*		
Assigned to a preferred location				
Not assigned to preferred location	-0.05	-1.21		
Logarithm of months at current location				
Logarithm of hours worked per week	11.71***	11.18***	11.72***	11.36***
Live on base				
Number of separations in past yr				
Months of separations in past yr			1.05***	0.86**
Problems from MM work schedule				

Table H.4—continued

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Perceptions of Army Environment and Practices				
Supportiveness of Army leadership	0.15***	0.14***	0.15***	0.13***
Necessity of time spent on duty	-3.31***	-3.74***	-2.88***	-2.88***
Necessity of PCS moves	-1.66***	-1.45***	-1.47***	-1.77***
Necessity of family separations			-1.34***	-1.02**
Army life better than civilian career	0.41***	0.42***	0.39***	0.29***
Adequacy of income				
Perceived availability of social support				
Individual Well-Being				
General emotional well-being	0.17***	0.17***	0.17***	0.16***
Depression				
Marital satisfaction	NA	NA		
Spouse Characteristics				
Employed	NA	NA	NA	
Logarithm of income	NA	NA	NA	
Education	NA	NA	NA	
Age	NA	NA	NA	-0.19
Years married to current spouse	NA	NA	NA	
Necessity of time spent on duty	NA	NA	NA	
Necessity of PCS moves	NA	NA	NA	
Necessity of family separations	NA	NA	NA	
Supportiveness of Army leadership	NA	NA	NA	
Mental health	NA	NA	NA	-0.07**
Depression	NA	NA	NA	
Marital satisfaction	NA	NA	NA	
Army life better than civilian career	NA	NA	NA	
Commitment to the Army	NA	NA	NA	0.30***

NOTE: Entries indicate regression coefficients included in the final specification of the model. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. NA = not applicable for model. Blanks indicate variables were nonsignificant and therefore dropped from the final models. Certain individual characteristics and family structure variables were included in the final models even if nonsignificant.

[a]For the married and single samples, we tested interactions among the dummy variable for the male and the dummy variables for child dependents. For the couple sample, we tested combinations of dual military family with the dummy variables for child dependents.

Table H.5

REGRESSION RESULTS FOR EXPECTED YEARS IN ARMY

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Constant	-19.84	-21.08	-13.92	-19.31
Individual Characteristics				
Age	0.38***	0.44***	0.35***	0.36***
Male	2.03***	1.43***	3.61***	2.16***
Black				
Education	-0.38***	-0.54*	-0.28*	-0.26
Logarithm of per capita family income	1.24***	1.44**	0.88**	0.96**
Junior	-3.09***	-4.21***	-2.92***	-2.47***
Enlisted	-2.25***	-2.39***	-2.22***	-1.62***
Family Structure				
Married	1.37***	NA	NA	NA
Dual military family	NA	NA		
Child dependent accompanying	1.72***	1.56**	3.05***	1.14**
Child dependent not acc.	0.95**	1.06*	1.59	0.65
Live with spouse	NA	NA		1.17
Logarithm of years married to current spouse	NA	NA		
Accompanied tour			0.44	0.02
Specific Interactions[a]				
Male, unacc. by child(ren)	NA		-0.70	NA
Male, acc. by child(ren)	NA		-1.98**	NA
Dual, unacc. by child(ren)	NA	NA	NA	
Dual, acc. by child(ren)	NA	NA	NA	
Army Environment and Practices				
Installation in CONUS				
Installation in Germany				
Installation in Korea				
Combat mission				
Support mission				
Training mission				
Combat unit				
Installation size				
Rural location		-1.37***	0.54*	0.58
Urban location				
Suburban location		-0.86*	0.27	0.55
Logarithm of commute time		0.52**		
Number of PCS per yr of service	0.19**		0.21**	0.23*
Did not request a preferred location				-0.36
Assigned to a preferred location				
Not assigned to preferred location				-0.50
Logarithm of months at current location				
Logarithm of hours worked per week	1.75***	1.69*	1.62***	1.97**
Live on base				0.59*
Number of separations in past yr				
Months of separations in past yr				0.24**
Problems from MM work schedule				

Table H.5—continued

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Perceptions of Army Environment and Practices				
Supportiveness of Army leadership	0.01			
Necessity of time spent on duty	-0.32***	-0.36**	-0.26**	-0.20
Necessity of PCS moves	-0.14*		-0.16	-0.22*
Necessity of family separations			-0.34***	-0.22*
Army life better than civilian career	0.08***	0.09***	0.07***	0.05***
Adequacy of income	0.30***		0.29**	0.30*
Perceived availability of social support				
Individual Well-Being				
General emotional well-being	0.03***	0.02**	0.03***	0.02***
Depression				
Marital satisfaction	NA	NA		
Spouse Characteristics				
Employed	NA	NA	NA	
Logarithm of income	NA	NA	NA	
Education	NA	NA	NA	
Age	NA	NA	NA	
Years married to current spouse	NA	NA	NA	
Necessity of time spent on duty	NA	NA	NA	
Necessity of PCS moves	NA	NA	NA	
Necessity of family separations	NA	NA	NA	
Supportiveness of Army leadership	NA	NA	NA	
Mental health	NA	NA	NA	
Depression	NA	NA	NA	
Marital satisfaction	NA	NA	NA	
Army better than civilian career	NA	NA	NA	0.06
Commitment to the Army	NA	NA	NA	

NOTE: Entries indicate regression coefficients included in the final specification of the model. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. NA = not applicable for model. Blanks indicate variables were nonsignificant and therefore dropped from the final models. Certain individual characteristics and family structure variables were included in the final models even if nonsignificant.

[a]For the married and single samples, we tested interactions among the dummy variable for the male and the dummy variables for child dependents. For the couple sample, we tested combinations of dual military family with the dummy variables for child dependents.

Table H.6

REGRESSION RESULTS FOR SPOUSE RESPONSIBILITY

Variable	Coefficients by Sample	
	All	Single
Constant	60.13	63.74
Individual Characteristics		
Age	0.21***	0.02
Male	-0.18	1.83
Black		
Education	-0.92*	-1.38**
Logarithm of per capita family income		
Junior	-1.08	-1.38
Enlisted	-2.03*	-1.67
Family Structure		
Dual military family		1.87
Child dependent accompanying	-1.81	2.84**
Child dependent not acc.	1.26	1.61
Live with spouse	-1.77	-3.48
Logarithm of years married to current spouse		1.87**
Accompanied tour		
Specific Interactions[a]		
Male, unacc. by child(ren)	5.20**	NA
Male, acc. by child(ren)	NA	NA
Dual, unacc. by child(ren)	NA	8.91
Dual, acc. by child(ren)	NA	-4.88
Army Environment and Practices		
Installation in CONUS		
Installation in Germany		
Installation in Korea		
Combat mission	2.67***	3.24***
Support mission	1.35	1.86
Training mission		
Combat unit		
Installation size		
Rural location		
Urban location		
Suburban location		
Logarithm of commute time		
Number of PCS per yr of service		
Did not request a preferred location		
Assigned to a preferred location		
Not assigned to preferred location		
Logarithm of months at current location		
Logarithm of hours worked per week		
Live on base		
Number of separations in past yr		
Months of separations in past yr		
Problems from MM work schedule		
Perceptions of Army Environment and Practices		
Supportiveness of Army leadership		
Necessity of time spent on duty		
Necessity of PCS moves		
Necessity of family separations		
Army life better than civilian career	0.05***	0.03

Table H.6—continued

Variable	Coefficients by Sample: All	Single
Adequacy of income	-1.15***	-1.22***
Perceived availability of social support	0.06***	0.07***
Individual Well-Being		
General emotional well-being	0.07***	0.08**
Depression	-1.90**	-0.96
Marital satisfaction	0.20***	0.20***
Spouse Characteristics		
Employed	NA	
Logarithm of income	NA	
Education	NA	0.88*
Age	NA	
Years married to current spouse		
Necessity of time spent on duty	NA	
Necessity of PCS moves	NA	-0.81**
Necessity of family separations	NA	
Supportiveness of Army leadership	NA	
Mental health	NA	
Depression	NA	
Marital satisfaction	NA	
Army better than civilian career	NA	
Commitment to the Army	NA	

NOTE: Entries indicate regression coefficients included in the final specification of the model. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. NA = not applicable for model. Blanks indicate variables were nonsignificant and therefore dropped from the final models. Certain individual characteristics and family structure variables were included in the final models even if nonsignificant.

[a]For the married and single samples, we tested interactions among the dummy variable for the male and the dummy variables for child dependents. For the couple sample, we tested combinations of dual military family with the dummy variables for child dependents.

Table H.7

REGRESSION RESULTS FOR INADEQUATE CHILD CARE DURING DEPLOYMENT

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Constant	1.16	2.60	1.30	2.16
Individual Characteristics				
Age	-0.04*	-0.07	-0.04	0.01
Male	-0.46	0.16	-0.88**	0.09
Black				
Education				
Logarithm of per capita family income				
Junior	-0.14	-0.15	-0.18	-0.23
Enlisted	-0.15	-1.38	-0.12	-0.44
Family Structure				
Married	-0.06	NA	NA	NA
Dual military family	NA	NA		1.16*
Child dependent accompanying	0.59	0.22	0.78	
Child dependent not acc.				
Live with spouse	NA	NA		
Logarithm of years married to current spouse	NA	NA		
Accompanied tour				
Specific Interactions[a]				
Male, unacc. by child(ren)				NA
Male, acc. by child(ren)			NA	NA
Dual, unacc. by child(ren)			NA	
Dual, acc. by child(ren)			NA	
Army Environment and Practices				
Installation in OCONUS	0.36*		0.53**	0.44
Combat mission				
Support mission				
Training mission				
Combat unit				
Installation size				
Rural location				
Urban location				
Suburban location				
Logarithm of commute time				
Number of PCS per yr of service				
Did not request a preferred location				
Assigned to a preferred location				
Not assigned to preferred location				
Logarithm of months at current location				
Logarithm of hours worked per week				
Live on base			0.46*	0.33
Number of separations in past yr				
Months of separations in past yr				
Problems from MM work schedule				
Perceptions of Army Environment and Practices				
Supportiveness of Army leadership	-0.01**		-0.01*	-0.01
Necessity of time spent on duty	0.17*			
Necessity of PCS moves				
Necessity of family separations				
Army life better than civilian career				

Table H.7—continued

Variable	Coefficients by Sample			
	All	Single	Married	Couple
Adequacy of income				
Perceived availability of social support			–0.01	–0.01
Individual Well-Being				
General emotional well-being	–0.01**		–0.01***	–0.01
Depression				
Marital satisfaction	NA	NA		
Spouse Characteristics				
Employed	NA	NA	NA	
Logarithm of income	NA	NA	NA	
Education	NA	NA	NA	
Age	NA	NA	NA	–0.09*
Years married to current spouse	NA	NA	NA	
Necessity of time spent on duty	NA	NA	NA	0.25*
Necessity of PCS moves	NA	NA	NA	
Necessity of family separations	NA	NA	NA	
Supportiveness of Army leadership	NA	NA	NA	
Mental health	NA	NA	NA	
Depression	NA	NA	NA	
Marital satisfaction	NA	NA	NA	
Army better than civilian career	NA	NA	NA	
Commitment to the Army	NA	NA	NA	

NOTE: Models estimated only among soldiers with children who reported using child-care arrangements during their most recent planned deployment of two weeks or longer (if one occurred in the past year). Entries indicate regression coefficients included in the final specification of the model. * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. NA = not applicable for model. Blanks indicate variables were nonsignificant and therefore dropped from the final models. Certain individual characteristics and family structure variables were included in the final models even if nonsignificant.

[a]For the married and single samples, we tested interactions among the dummy variable for the male and the dummy variables for child dependents. For the couple sample, we tested combinations of dual military family with the dummy variables for child dependents.

Appendix I

REGRESSION RESULTS FOR ANALYSIS OF SOLDIERS' SERVICE USE

Table I.1 shows the logistic and negative binomial regression results for the sample of military members in our Army data. The coefficients shown are unstandardized regression coefficients. Variables listed in the left column represent the full specification of the model. Coefficients shown for each sample are those that were retained in the final specifications. Specific definitions for independent variables were given in App. E.

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